CONSTRUCTION NEWS

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RAILWAYS.

(* *denotes that this work is advertised in Engineering News.*)

ARKANSAS, OKLAHOMA & WESTERN.—We are officially advised that this company has a 35-mile extension under construction, from Rogers to Huntsville, Ark. Company is in the market for some drilling machinery and twelve 12-yd. air dump cars. Geo. D. Locke is Vice-Pres. and Gen. Mgr., Rogers, Ark.

BALTIMORE & OHIO.—The Board of Directors on Feb. 10 approved plans for putting into effect sundry improvements and betterments recommended in a report submitted by Daniel Willard, Pres. Provision is thus made for a total of about 30 miles of third track to be built through the mountains in the West Virginia coal territory and evolving the elimination of tunnels and an addition of approximately 150 engines to the power now available for handling trains. The expenditures sanctioned amount to more than $8,000,000, of which $5,000,000 will be used upon the roadway. The latter expenditure will be largely for improving operation at points where congestion is most liable to occur. Much work will be done on the mountain sections, where two tunnels are to be eliminated entirely, and third running tracks laid at the approaches to others, thus facilitating traffic through them. Provision for heavier motive power necessitates increased width and height at various points, and difficulties experienced with the water supply are to be obviated by the construction of a 90,000,000-gallon reservoir, with a pipe system therefrom that will meet demands which hitherto had to go unheeded. Enlargement and reconstruction of yards, new helper stations, etc., are to be added to those previously authorized, and will expedite the movement of both freight and passenger traffic. Noted on Jan. 20.

CANADIAN NORTHERN.—Wm. Mackenzie, Pres. of the C. N. Ry. Co., has announced that this company will build between 500 and 600 miles of road in the West this year, to make a good start on its British Columbia line, in accordance with its agreement with the Provincial Government.

CANADIAN PACIFIC.—Details given recently by Wm. Whyte, Second Vice-Pres., at Montreal, regarding this company's program of Western improvements include the completion of the line from Regina by a 15-mile cut-off from Craven to Bulyea, giving Regina direct communication with northern Saskatchewan. A line from Craven on the west side of Lost Mountain Lake, northwesterly to Colinsay on the line between Winnipeg and Saskatoon, 110 miles, opening up a new farming territory. A big bridge over the south Saskatchewan River at Outlook, and a line westerly 93 miles from Outlook and from that point north to Macklin on the Saskatoon-Wetaskiwin line. A line from a point 26 miles west of Weyburn, where the present line ends, 25 miles further. This is a colonization line, and will be ultimately extended to make a through line between Weyburn and Lethbridge. On the Lauder colonization line the road will be continued from Tilston 24 miles west. From Regina a line will be built southwest to Craven on the cut-off between Weyburn and Stoughton, 79 miles. These lines are all in Saskatchewan.

In Alberta the plans include a line running north from Langdon, which already extends 30 miles to Rirricana, in the irrigation country. This will be extended 15 miles easterly, to give further facilities to settlers in the irrigation block, and will be eventually carried north to connect at Red Deer with the Calgary and Edmonton line. Another line will be built on the Kipp extension, west of the Belly River viaduct, which now stops at Carmanguay, on the Little Bow River. This will be extended northerly 30 miles to take care of the Alberta fall wheat. In British Columbia, in the Columbia and Kootenay valleys, a line will start from near Elcho on the Crow's Nest Pass line up to Fort Steele, to meet the line already started, southward from Golden, making a connection between the two main lines, a distance of 174 miles. In Manitoba the line will be double-tracked from Winnipeg to Portage la Prairie, a distance of 58 miles, and this will eventually be continued to Brandon. Noted last week.

GRAND TRUNK PACIFIC.—This railway will be completed into Yellowhead Pass this year, according to a statement made by E. J. Chamberlin, Gen. Mgr., Winnipeg, Man. The line from the McLeod River to the Tete Jaune Cache is now under contract with FOLEY, WELCH & STEWART, of Spokane, Wash. Construction will be extended over the entire distance of 179 miles during the coming year.

GRAND TRUNK RY. SYSTEM.—Company has plans ready to commence the work of abolishing grade crossings in Toronto about May 1. The first project to be undertaken will be the elimination of all level crossings from Bathurst St. to the Humber River, at an estimated cost of $2,000,000, of which the city's share will be about $400,000. H. G. Kelley is Ch. Engr. G. T. System, Montreal, Que.

KANSAS CITY SOUTHERN.—Contract for grading yards at De Queen, Ark., has been awarded to E. D. STEWARD, of Fort Smith, Ark. As officially noted on Sept. 2, '09, "the FERGUSON CONTRACTING CO., 37 Wall St., New York, has been awarded contract for change of line between De Queen and Neal Springs, Ark., 12 miles. Estimated cost, $750,000."

LOUISVILLE & NASHVILLE.—Contract has been awarded to the CALLAHAN CONSTRUCTION CO., Knoxville, Tenn., to construct a 24-mile extension to the Wasioto & Black Mountain extension of the Louisville & Nashville R. R. The new line will start near Pineville, Ky., and extend into Harlan, Ky.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE.—Contracts will be let this month or early in March for improvements, including a cut-off from New Richmond, Wis., west to Whitrow, Minn., 17 miles, and a cut-off from Spencer, Wis., west to Owen, 19 miles. A steel bridge will be erected over the St. Croix River. Thos. Green is Ch. Engr., Minneapolis, Minn.

OTTAWA, MONTREAL & EASTERN.—The Railway Committee, House of Commons, Ottawa, has reported with several amendments the bill to incorporate the Ottawa, Montreal & Eastern Ry. Co. The incorporation is made up of William I. Bishop, Arthur Jarvis, Charles E. Cutler, Victor Cusson and Maurice Tetreau, all of Montreal, and the head office of the company will be in that city. The capital stock was changed from $1,000,000 to $2,000,000 and the bonding power reduced by the committee from $50,000 to $40,000 a mile. The company proposes to operate and construct a line 230 miles long from St. Agnes, on Lake Megantic in Compton County, through the Counties of Wolfe, Arthabaska, Richmond, Drummond, Yamaska, Bagot, Richelieu, St. Hyacinthe, Vercheres and Chambly, crossing the St. Lawrence River by bridge or tunnel to Montreal at or near Longueuil, and thence in a westerly direction through the Counties of Hochelaga, Jacques Cartier, Laval, Terrebonne, Two Mountains and Argenteuil, then crossing the Ottawa River to the city of Ottawa, passing on the south side of the river through the Counties of Prescott, Russell and Carleton. The clause giving power to build a bridge or tunnel across the St. Lawrence River at or near Longueuil was carried without discussion. The company was authorized to issue bridge or tunnel securities to an amount not exceeding $6,000,000, and was given three years to commence and seven years to complete this part of the undertaking. Noted on Dec. 23.

PECOS, TOYAH VALLEY & SOUTHERN.—This railway will be 40 miles long, extending from Pecos, Tex., to San Solomon Spring, via Saragosa and Balmorhea, including a bridge of 200 ft. span over Toyah Creek and a 600-ft. low wooden bridge. The company's forces will construct the line, and 36 miles are to be completed by June 1 to the town of Saragosa. The name has been changed from Pecos Valley Southern Ry. Co. to Pecos, Toyah Valley & Southern Ry. Co. W. L. Carwile, of Dallas, Tex., is interested.

PECOS VALLEY SOUTHERN.—See Pecos, Toyah Valley & Southern.

PITTSBURG & SHAWMUT.—Directors have voted authority to issue $12,000,000 of bonds, a portion of which will be sold to cover present construction. This company, which is controlled by the principal interests in the Pittsburg, Shawmut & Northern R. R. Co., and which was until recently itself known as the Brookville & Mahoning R. R. Co., has $15,000,000 authorized capital stock. Its line, which is partly constructed, will be 102½ miles in length, extending from Hyde, Pa., on the Pittsburg, Shawmut & Northern, to Freeport, Pa., on the Allegheny River, a few miles east of Pittsburg, and is expected to be completed and in full operation within a year or so, when the company probably will be consolidated with the Pittsburg, Shawmut & Northern, under the title of Pittsburg, Shawmut & Northern Ry. Co. Noted under "Brookville & Mahoning" on Sept. 23, 1909. F. S. Smith, Receiver, 60 Wall St., New York.

SOUTHERN NEW ENGLAND.—A charter incorporating the Southern New England Ry. Co., to be operated as a branch of the Grand Trunk Railway System, has been introduced in the Rhode Island Legislature at Providence by Representative G. Holmes. The petition was signed by C. M. Hays, Pres. of the Grand Trunk Railway, and by R. H. Fitzhugh, Vice-Pres. As planned, the proposed road will run from Palmer, Mass., to Providence, R. I.

WASIOTO & BLACK MOUNTAIN.—See Louisville & Nashville.

ELECTRIC RAILWAYS.

WHITE PLAINS, N. Y.—The Westchester & Northern R. R. Co. has been incorporated in New York with $1,000,000 capital to operate a steam or electric railway from a connection with the New York, Westchester & Boston Ry. at White Plains, N. Y., to Danbury, Conn., 45 miles, of which 35 miles are to be in the state of New York, and ten miles in Connecticut. There is also to be a branch from Pound Ridge, Westchester County, to the line of the New York, New Haven & Hartford R. R. in Putnam County, 14 miles. Robert T. Bird, of Hartford, Conn.; L. S. Miller and W. A. Cokeley, New York; Allan Wardwell Lawrence, N. Y.; R. P. Buell, Bayside, N. Y.; James L. Crider, Mount Vernon, N. Y.; John C. Gleason, New Rochelle, N. Y.; Charles L. Nagle, Bayonne, N. J., are the directors.

GREENSBORO, PA.—W. E. Hildebrand, of Seward, Pa., Vice-Pres. of the Johnstown & Greensburg Railway Co., has announced that work will begin early in April on the first ten miles of the line which is to connect the two towns. The road will first be built from Greensburg to Latrobe. The charter name of the company is Greensburg, Latrobe & Eastern Ry., but is to be changed to the Johnstown & Greensburg Ry. Co. soon. The road will pass through Luxor, Latrobe, Ligonier, New Florence, Seward and to Johnstown. Other officers of the company, besides Mr. Hildebrand, are: Warren Utts, Pres.; R. G. Lohr, Secy., and H. H. Smith, Treas.

A plan to build an electric railway between Greensburg and Latrobe is under way. A temporary company has been organized with the following board of directors: Henry J. Clark, of Johnstown; John Yingst, of Harrisburg; Frank Shellhouse, of Pittsburg; William Patch, of Wilmerding; Thomas J. Frost, of Pittsburg; Harry Blake, of Berkeley Springs, W. V.; Jacob E. Hinkel, of Wilmerding, Pa., and A. L. Seay, of Richmond, Va.

UPPER MARLBORO, MD.—A bill incorporating the Washington, Marlboro & Drum Point Railway, Power & Lighting Co. has been introduced in the Senate by Senator Wells, of Prince George County. The incorporators names are Francis E. Baker, C. A. M. Wells, Richard N. Ryan, Robert W. Wells, William C. Carroll, Reese Carpenter, Charles C. Mayer, M. Hampton Magruder, Francis S. Carmody, Edward A. Fuller and C. Francis Owens. The capital stock of the company is to be $10,000, with permission to increase it to $3,000,000. The purpose is to construct a railroad from the District of Columbia line, through Marlboro to some point on the Patuxent River near Solomon's Island. Branch roads may be built in Calvert and Prince George Counties. The company is to be permitted to sell electrical power in those counties.

CYNTHIANA, KY.—We are officially advised that the Cynthiana & Paris Ry. Co. has completed surveys for its proposed line and have secured most of its right-of-way. It will run from Cynthiana to Paris, Ky., via Lair and Brentsville. It is planned to commence construction soon. There will be four bridges. R. H. Rees is Ch. Engr., Cynthiana. Noted on Jan. 27, under "Railways."

MINSTER, OHIO.—The Minster & Loramie Ry. Co. has been incorporated with a capital stock of $100,000, to build an electric railway from Minster to Loramie, a distance of three miles, to connect with the Western Ohio Ry. at Minster, forming an extension south of what is known as the St. Mary's branch of the latter road. The incorporators are F. D. Carpenter, of Lima, Ohio, Gen. Mgr. of the Western Ohio, Ry.; John H. Koenig, of St. Marys, Pres. of the Fort Wayne & Springfield Railway Co.; E. L. Herr and E. C. Riddle, of Wapakoneta, Ohio; and C. C. Collins, of Cleveland, Ohio. Work will commence on the new road at once.

BEECH GROVE, IND.—The Town Board has granted a franchise to the Beech Grove Traction Co. to operate an electric railway through the streets of Beech Grove. The Beech Grove Traction Co. has let contract to the ALLEN CONSTRUCTION CO., Indianapolis, for building its railway between Beech Grove and Indianapolis. Wm. H. Ogan is Pres.; Morton S. Hawkins is Secy., Indianapolis. Noted on Jan. 6.

INDIANAPOLIS, IND.—The Indianapolis & Cincinnati Traction Co. is to be reorganized soon and plans made for an extension from Connersville, Ind., to Harrison, Ohio, 30 miles. Estimated cost, $1,000,000. Chas. L. Henry, 711 Traction Terminal Bldg., Indianapolis, is Receiver, Pres. and Gen. Mgr.

CARTHAGE, ILL.—The Hamilton, Carthage & Nauvoo Ry. Co. has been incorporated in Illinois to build an electric railway from Carthage to Keokuk. Capital stock, $2,500. Incorporators: R. R. Wallace, E. F. Jolidon, Harry M. Cuerden and Henry K. Denton, of Hamilton, Ill., and James T. Hendricks and James McCarthy, of Carthage.

DECATUR, ILL.—It is officially announced that the Decatur Southern Traction Ry. Co. probably will commence construction within the next four months. This proposed 35-mile electric railway is to extend from Decatur to Elwyn, Macon, Walker, Moweaqua, Assumption, Dunkel and Pana. Surveys are made and all right-of-way secured. Power station and repair shops to be built at Decatur. Capital stock, $25,000. Joseph Nordenschild, 29 Broadway, New York, is Pres.; Peter Chase, Decatur, Vice-Pres. and Gen. Mgr.; Henry C. Simons, Virden, Ill., Secy.; John J. Pierpont, Pana, Treas. Communications should be addressed to the company at Decatur. Noted on Feb. 10.

CRESTON, IOWA.—The directors of the Des Moines, Winterset & Creston Interurban Ry. Co. state that stock amounting to $65,000 has been sold; half enough to insure the building of the road. Officers have been elected as follows: Pres., R. Brown, Creston; First Vice-Pres., Harry Wilkins, Adair County; Second Vice-Pres., M. Harris, Madison County; Secy., A. J. Lynn, and Treas., W. W. Walker, of Creston.

CENTERVILLE, S. DAK.—C. A. Magee, Pres. of the Sioux City, Sioux Falls & Missouri River Ry., Parkston, S. Dak., has applied to the City Council for a franchise to build an electric railway through Centerville. The route as planned will be from Sioux City to Sioux Falls via Elk Point, Centerville, Leeville and Wothing. Noted on Jan. 20.

RENTON, WASH.—The Valley Ry. & Power Co. is securing right-of-way and making final surveys for its proposed line between Kent and Renton, via Orillia and O'Brien. Officers are: H. B. Madison, of Kent, Pres.; Robert Bridges, of O'Brien, Vice-Pres.; Isaac P. Calhoun, of Kent, Secy.; Thomas Chapman, of O'Brien, Treas.; Lee Monohan, of Renton, Auditor, and A. T. West, of Seattle, Gen. Mgr.

RED BLUFF, CAL.—The Northern Electric Railway Co., now operating a system between Sacramento, Marysville, Oroville and Chico, has filed deeds at Red Bluff by which it secures right-of-way across Los Molinos in Tehama County, twelve miles below Red Bluff. The deeds are granted free on condition that the railroad be extended from Chico to Los Molinos before the end of 1910, and on to Red Bluff before the close of 1911. The company will also soon build from Yuba City through Meridian and Colusa to Hamilton City. A. D. Schindler, Alaska Commercial Bldg., San Francisco, is Gen. Mgr. and Pur. Agent.

LIGHT AND POWER PLANTS.

(* *denotes that this work is advertised in Engineering News.*)

KEENE, N. H.—The Keene Gas & Electric Co., at present extending its transmission lines from the present terminus at West Swanzey to Winchester and Ashuelot, has decided to extend the lines to Marlboro, Troy and Fitzwilliam. The Winchester line will ultimately extend to a point near Hinsdale, at which point connection will be made with the high-tension lines of the Connecticut River Power Co. The directors of the Keene Gas & Electric Co. are negotiating with the Connecticut River Power Co. for connection with the power company's lines for the purchase of power in large quantities.

NEW BEDFORD, MASS.—The E. E. Taylor Co. has awarded contract for the construction of a 4-story addition to its plant, the construction of a fireproof boiler room and power house and the installation of an entirely new power plant to the Z. B. DAVIS CORPORATION.

BRIDGEPORT, CONN.—The Bridgeport Malleable Iron Co. is considering plans for the installation of a new power plant to replace the plant now in use.

DANBURY, CONN.—The Danbury & Bethel Electric Light Co. has increased its capital stock from $200,000 to $300,000.

JOHNSBURG, N. Y.—The North Creek Electric Co., of North Creek, N. Y., has been granted permission by the Public Service Commission, Second District, to exercise the franchise granted by this town to construct and operate an electric system here, and to issue $20,000 of bonds for the construction of the plant. The company proposes to construct a hydro-electric power plant and to secure water from Long and Clear ponds.

ELMIRA, N. Y.—The Public Service Commission, Second District, has authorized the Elmira Water, Light & R. R. Co. to acquire all the capital stock of the Montour Falls Electric Light Co. and to issue a mortgage for $20,000 for acquiring this stock. The company is also authorized to exercise franchises in Horseheads, Veteran and Montour for the purpose of distributing electricity in these towns and extending its transmission lines through them to Montour Falls and extend its transmission lines in Southport and Elmira, where franchises have been granted.

GARWOOD, N. J.—Arrangements are being made to enlarge the power plant of the Aeolian Co. here, and the company, it is reported, will be in the market for boilers, condensers, engine-driven generators, pumps, etc., together with machinery for its new shops.

NEWARK, N. J.—The Oscar Barnett Foundry Co., of Newark, will soon purchase equipment for a 300-HP. plant to be installed in its new shops, which will include boilers, heater, pumps, Corliss engine and generators, together with cranes, motors and operating equipment.

CAMDEN, N. J.—The Armstrong Cork Co., of Camden, has awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for a gas-engine generator unit, consisting of an 18 x 24 tandem horizontal double-acting, and will operate on producer gas, direct connected to a 200-KW., 250-volt, 200-r.p.m., direct-current generator.

KEYPORT, N. J.—Plans are being considered by the Whitall Tatum Co. for the construction of a factory in Keyport, with power plant requiring an engine, dynamo and other equipment.

ERIE, PA.—A building permit was issued on Jan. 31 for the 2-story brick power plant to be built by the Erie Brewing Co. as an addition to the Jackson Koehler branch brewery at 22d and State Sts. The contractors are KIRSCHNER BROS. Estimated cost, $20,000.

PITTSBURG, PA.—The Jones & Laughlin Steel Co., of Pittsburg, has awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for an 18x24 single tandem horizontal double acting engine having cylinders 48x84x60-in. stroke.

The Department of Public Works on Feb. 7 awarded contract to the SUNLIGHT ILLUMINATING CO., 6302 Penn Ave., Pittsburg, for incandescent lighting in city thoroughfares.

SCRANTON, PA.—The Scranton Gas & Water Co. has awarded contract for a steel gas storage tank, 130 ft. high, to the RITER-CONLEY MFG. CO., 55 Water St., Pittsburg, at $125,000.

WASHINGTON, D. C.—Bids will be received by James Knox Taylor, Supervising Arch., Treasury Department, Washington, D. C., until Feb. 24 for furnishing lamp standards and brackets that may be required for various buildings under control of the Treasury Department. Plans and specifications can be secured at the office of the Supervising Architect.

EDENTOWN, N. C.—Plans are being considered for the installation of a 75-KW., alternating-current, direct-connected unit in the municipal electric-light plant and establishment of a day service. J. C. Martin is Supt.

ATLANTA, GA.—The Atlanta Steel Co. is preparing to install two steam turbines in its plant at Brookwood, which are to be operated by the exhaust steam of two large engines already installed. The turbines will replace ten smaller engines, aggregating about 1,200 HP. Estimated cost, about $75,000. T. K. Glenn is Pres.

ST. PETERSBURG, FLA.—Application has been made to the City Council by R. E. Ludwig and associates, or Sarasota, Fla., for a franchise to construct and operate an electric light and power plant here.

CINCINNATI, OHIO.—Bids will be received at the office of the Clerk of the Board of Education, City Hall, until Feb. 28 for furnishing and installing, complete, electric fixtures and lamps in the new Hughes High School building, corner of Clinton Ave. and McMillan St. Plans and specifications can be seen at the office of C. W. Handman, Business Mgr., 511 West Court St., Cincinnati.

NORWOOD, OHIO.—The Norwood Council on Feb. 7 passed an ordinance providing for an $18,000 bond issue for the improvement of the electric light plant and an issue of $15,500 for the improvement of the water plant, this latter to include two new wells, additional piping and other necessary improvements.

LANSING, MICH.—The Council has approved the Water and Electric Light Board's plan to spend about $75,000 during the coming year outside of the regular running expenses when it approved the recommendation of the Council's Committee which was appointed to inquire into the advisability of adding sufficient new equipment to enable the city electric plant to carry the load under all conditions.

BRADLEY, ILL.—The KANKAKEE ELECTRIC LIGHT CO. has closed a contract with the Joseph Turk Co., of Bradley, to furnish electric power for the factory for the next ten years. The steam plant now in the factory will be put out of commission as soon as the electric motors can be installed. It will take 150 HP. to operate the factory.

GREEN BAY, WIS.—Bids will be received by the Special Building Committee of the Board of Supervisors of Brown County until March 15 for furnishing and placing in position all the wood and metal furniture, electric fixtures and furnishing material and decorating the new court house building now being erected at Green Bay, in accordance with plans and specifications of C. E. Bell, Arch. Plans and specifications can be seen at the office of Elmer S. Hall, County Clk., Green Bay, and at the office of C. E. Bell, Arch., 901 Northwestern Bldg., Minneapolis, Minn.

OMAHA, NEB.—Contract has been awarded to the OMAHA ELECTRIC LIGHT & POWER CO. by the Cudahy Packing Co. to furnish electricity to the Cudahy company, beginning Feb. 1. The company announced some time ago that it would construct a new power house, but has decided not to build for the present. The Cudahy company uses about 1,000 HP., of which the electric company will furnish 600 HP.

DICKINSON, N. DAK.—Arrangements are being made by Hughes & Deiters, owners of the local electric light plant, for extensions and improvements to the plant. Estimated cost, $15,000. An order has been placed for a 327-HP. cross-compound Buckeye engine, which will have a 200-KW. generator.

MILES CITY, MONT.—E. L. Benson, representing Eastern capitalists, is contemplating the purchase of the local electric light plant and the installation of water power.

ALTUS, OKLA.—On Feb. 1 the proposition to issue $200,000 of bonds for improvements to the municipal electric light plant waterworks and sewerage systems, was voted upon favorably.

EL RENO, OKLA.—Preparations are being made by the Canadian Mill & Elevator Co. for the installation of a complete power plant, equipment to include a 200-KW. generator, to be driven by a 250-HP. engine, 350-HP. Corliss engine, two 175-HP. boilers, surface condenser, cooling tower, etc.

DENVER, COLO.—The Denver Gas & Electric Co. has announced a reduction in the price of electricity for lamps from 9 to 8 cts. per KW-hour, to take effect from Jan. 1, 1910. Beginning with July 1, 1910, the price of gas will be reduced from $1 to 90 cts. per 1,000 cu. ft.

WARD, COLO.—The Audubon Power Co., which proposes to construct a power plant here, has placed its bonds and will commence work on the construction of its plant as soon as the weather will permit. It is estimated that the plant will develop about 600 HP., and will supply electricity for mines and mills in this district. J. E. Haggard is interested.

SEATTLE, WASH.—See item under Streets and Roads.

SPOKANE, WASH.—The Inland Empire Railway Co., of Spokane, has awarded contract to the WESTINGHOUSE ELECTRIC & MFG. CO., 307 Fifth St., Pittsburg, Pa., for complete equipment for the second half of its power plant at Nine Mile, which includes two 3,000-KW. generators, two 3,000-KW., 3-phase, 6,600-volt transformers, high-tension switches, etc., and for two 1,500-KW. synchronous motor generator sets, four 2,000-KW., 66,000-volt, single-phase transformers, switchboard, etc., for substation.

SPOKANE, WASH.—The Columbia River Reclamation Co. has been organized to develop power sites in central Washington. Robert E. Strahorn, Spokane, is interested.

DRAIN, ORE.—The City Council has passed an ordinance for lighting the city with electricity and to enter into a contract with the DRAIN ELECTRIC LIGHT & POWER CO. for a term of 20 years. Under the terms of the franchise the company is to begin work on construction of its plant within 30 days and to have it completed within eight months.

LOS ANGELES, CAL.—The Southern California Edison Co. has applied to the Board of Supervisors for a franchise for a large number of transmission lines in Los Angeles County. The franchise has been advertised.

LOS ANGELES, CAL.—The new power plant of the Southern California Edison Co., proposed to be built in Santa Ana Canyon, and which will be known as Santa Ana No. 3, probably will be begun this spring or summer. The plant will be the largest of those operated by the company in this section, and will have a 7,000-KW. capacity or double what any one of the present plants have. Estimated cost of structure with the other extension work which will be necessary, about $600,000. The house will be built above the company's headworks in what is known as Lost Man's Canyon, or at the site of Slide Lake. It is proposed to divert the water in Fillaree flats and carry it to the power house, also to carry the water from Cork Screw Falls, which will bring two lines into the plant. B. F. Pearson is Gen. Supt.

HERMOSA BEACH, CAL.—The Trustees of Hermosa Beach have awarded contract to the EDISON ELECTRIC CO., of Los Angeles, for the installation of arc lamps on all thoroughfares where street work is in progress. Estimated cost, $250,000.

COMPTON, CAL.—The City Council has granted the Consolidated Utilities Co. a 30-year franchise to erect and maintain transmission lines over the streets and highways of the city for the distribution of electricity for lamps, heat and motors. H. T. Dunning is City Clk.

POMONA, CAL.—Plans have been prepared for extensive improvements to the street lighting system by a committee composed of business men of the city.

OAKLAND, CAL.—The Oakland Gas Light & Heat Co. has agreed to furnish electricity for illuminating purposes to Alameda County at 3½ cts. per KW.-hour, and 3 cts. per KW.-hour for motors.

RIVERSIDE, CAL.—The Pacific Telephone & Telegraph Co. is contemplating improvements to its plant in this city which include the installation of 7,000 ft. of underground conduit, three miles of underground cables, 20 miles of 22-gage and 19 miles of 19-gage aerial cable.

VISALIA, CAL.—The Mt. Shasta Power Co., lately incorporated, proposes to construct a large water power development, transmission system, the plant to be located on Pitt River, in Shasta County. As yet the heavy construction work has not been started and when commenced will take four or five years to complete. The proposed plant will have an output of about 200,000 HP. John Coffee Hays is Pres., Visalia.

SIERRA MADRE, CAL.—Bids are asked by the Board of Trustees until March 15 for the sale of a franchise to construct gas plant and supplying the city with gas for a period of 50 years. The franchise also grants the privilege of installing a system of underground conduits and gas pipe throughout all the city streets. J. A. Madden is Clk.

PRESCOTT, ARIZ.—The Arizona Power Co. is preparing for the construction of a second hydro-electric power plant on Fossil Creek, work on which will begin soon. It is estimated that 3,000 HP. can be developed, which will increase the output of the company to 15,000 HP. The company furnishes electricity to the various mining camps in this section.

TORONTO, ONT.—Bids will be received by the Board of Control until March 8 for a supply of underground cable. Specifications may be seen and proposal forms secured at the Electrical Department, City Hall. G. R. Geary, Mayor, is Chn.

LONDON, ONT.—Bids will be received by the city until Feb. 26 for electrical apparatus, including transformers, motor-generator set, voltage regulators, switchboards, lightning protectors, instruments, arc and incandescent street lighting system. E. I. Sifton is Electrical Engr.

CALGARY, ALTA.—Improvements contemplated by the Calgary Water Power Co. to its plant during 1910 include the installation of an 800-HP. Babcock & Wilcox boiler, one 750-HP. Robb-Armstrong engine and a 500-KW. alternating current, 3-phase, 60-cycle, 2,000-volt Westinghouse generator. P. A. Prince is Vice-Pres. and Mgr.

VANCOUVER, B. C.—The JENS ORTINGBOVING CO., Hydraulic Engrs., of London, England, Herbert W. Kent, Local Representative, has been given the contract for furnishing and erection of 9,000 ft. of penstock for the Vancouver Island Power Company's generating station on the Jordan River, at about $800,000. Work will begin immediately.

BRIDGES.

(denotes that this work is advertised in Engineering News.)*

SANDY HOOK, CONN.—The New York, New Haven & Hartford R. R. Co. has awarded contract for a bridge at Sandy Hook requiring about 400 tons of steel to the PHOENIX BRIDGE CO., 49 William St., New York.

WESTBROOK, CONN.—Bids will be received until Feb. 21, extension of date from Feb. 1, by P. C. Burdick, First Selectman for constructing a combination steel and concrete bridge over the Menunketesuck River. Buck & Sheldon are Engrs., 36 Pearl St., Hartford.

ROCHESTER, N. Y.—E. A. Fisher, City Engr., has prepared plans for a 10-span concrete bridge, 66 ft. wide and 513 ft. long, over the Genesee River at Central Ave. Estimated cost, $150,000. Noted on Jan. 27.

EAST AURORA, N. Y.—Bids will be received until Feb. 19 by the Town Board for constructing a bridge on the Graves Road across the east branch of Cazenovia Creek, town of Aurora. George C. Diehl is County Engr., 575 Ellicott Sq., Buffalo.

SENECA FALLS, N. Y.—An appropriation has been made for the construction of a new bridge over the canal at Ovid St., Seneca Falls. Plans and specifications for the work have not yet been prepared.

ASBURY PARK, N. J.—See item under Streets and Roads.

WYOMISSING, PA.—Bids will be received by A. L. Rhoads, County Controller, until March 8 for the construction of a reinforced concrete arch bridge in Wyomissing.

CARNEGIE, PA.—The Pittsburg, Cincinnati, Chicago & St. Louis Ry. Co. will complete plans and specifications for the construction of an overhead foot-bridge from Dick St. to Jail Alley.

PITTSBURG, PA.—The Public Works Department awarded contract on Feb. 7 to the FRIDAY CONTRACTING CO., House Bldg., Pittsburg, for the construction of the Meadow St. bridge over Negley Run hollow, at $84,326.

PARKERSBURG, W. VA.—Bids are asked until Feb. 19 by the County Court for the construction of a new iron bridge across Worthington Creek at Staunton Ave.

COLUMBUS, GA.—Central of Georgia Ry., C. K. Lawrence, Ch. Engr., Savannah, Ga., will construct, it is reported, a steel bridge across the Chattahoochee River. Estimated cost, $150,000.

ST. PETERSBURG, FLA.—Hillsboro County has awarded contract at $3.75 per ft. to JACKSON & WILLIAMSON, of St. Petersburg, for constructing a bridge across Long Bayou at Johns Pass, concrete piling. Estimated cost, $10,000. George Fuchs, Tampa, Fla., is County Engr.

BIRMINGHAM, ALA.—The City Council has instructed Maury Nicholson, City Engr., to prepare plans and specifications and make estimates for the construction of a subway or viaduct on 19th St.

LOUISA, KY.—Borderland Coal Co., Borderland, W. Va., contemplates the construction of a bridge across the Tug brauch of the Big Sandy River.

LISBON, OHIO.—Bids are asked until Feb. 28 by the County Commissioners for the construction of two reinforced-concrete box culverts.

CLEVELAND, OHIO.—Bids are asked by the Commissioners of Cuyahoga County until 11 a. m., March 2, for bridge work per reports No. 2404, concrete arch and stone arch, Irish Road, Middleburg Township. John F. Goldenbogen is Clk.

CINCINNATI, OHIO.—Bids will be received at the office of the Board of County Commissioners until noon, March 11, for the following county work: Under Specification No. 1006, for concrete bridge on Bogard road, near Albert Bogart's place, in Anderson Township.

OAK HARBOR, OHIO.—We are officially advised that contract for bridge work at Oak Harbor bridge has been awarded by Ottawa County Commissioners to the MODERN CONSTRUCTION CO., of Fremont, Ohio.

ANDERSON, IND.—The Indiana Union Traction Co. is preparing to build a new bridge over White River in this city.

AUBURN, IND.—The Commissioners of Dekalb County will soon ask for bids for the construction of 25 bridges and arches in the county.

*ANN ARBOR, MICH.—Bids are asked by the Board Public Works until 7.30 p. m., March 9, for the erection complete of a 2-span concrete bridge, each span to be 75 ft. in the clear, with a 20-ft. roadway and one 6-ft. walk. Bidders will furnish plans with sufficient details to enable the Board to judge the merits of each proposal. The City Engineer will furnish necessary information as to elevations, etc., upon application. E. W. Groves is City Engr.

*ST. JOSEPH, MICH.—Bids are asked until noon, March 16, by the city for the construction of a substructure for a swing bridge on Wayne St. over Morrison Channel and the Michigan Central Ry. tracks; also for timber protection for said draw, and also for a temporary wooden bridge over said channel and railway tracks. Plans and specifications for the work will be on file in the office of M. Weber, City Clk., and at the office of W. M. Hughes, Consulting Engineer, Postal Telegraph Bldg., Chicago, Ill., after Feb. 21. Complete copies of said plans and specifications may be procured by a deposit of $5.

LANSING, MICH.—All bids opened on Jan. 31 by the city for the construction of a foot bridge over Grand River at South St. have been rejected. The lowest bid have been that of the Western Concrete Bridge Co. at $3,400. H. A. Collar is City Engr.

SUPERIOR, WIS.—The CENTRAL STATES BRIDGE CO., Indianapolis, Ind., has been awarded contract, at $11,474, for the construction of the new narrows bridge. It will be completed by June 15.

MANCHESTER, IOWA.—GUS BENNET, of Manchester, has been awarded contract for the construction of a new steel and concrete bridge across the Buffalo River, west of Ryan. The structure will be 80 ft. long and will be commenced in the spring.

DES MOINES, IOWA.—Contract probably be let early in the spring for the proposed bridge at Walnut St. John Budd is City Engr.

FORT SNELLING, MINN.—COUGH BROS. were awarded contract on Feb. 7 for the construction of the approach to the Fort Snelling bridge at $9,700.

TOPEKA, KAN.—Bids will be received until Feb. 18 by the Board County Commissioners, F. B. Simms, Chn., for replacing two 148-ft. steel spans on the north end of the bridge across the Kansas River near the west line of the county, and also for constructinng a concrete pier and the repair of the cylinder pier at the north of the span now standing, bids to be submitted separately for the superstructure and substructure.

MANDAN, N. DAK.—BATES & ROGERS, 355 Dearborn St., Chicago, Ill., have been awarded contract for the construction of a bridge for the Northern Pacific extension across the Heart River here.

GRAND JUNCTION, COLO.—Bids are asked until noon, Feb. 26, by Charles W. Comstock, State Engr., Denver, Colo., for the construction of five concrete piers and two concrete abutments for the State bridge to be erected over the Grand River at Grand Junction, Mesa County.

CARLSBAD, N. MEX.—Bids will be received until Feb. 21 by the County Commissioners for the construction of a bridge over the Pecos River. J. M. Cunningham, of Carlsbad, is Engr.

ENDICOTT, WASH.—The GILBERT HUNT CO., of Walla Walla, Wash., has been awarded contract to build two steel bridges, one across the Palouse River near Endicott, and the other across Pine Creek.

PORTLAND, ORE.—The PACIFIC BRIDGE CO., of Portland, has been awarded contract, at $63,339, for the construction of a steel and concrete viaduct on East 12th St., across Sullivan's Gulch.

SAN DIEGO, CAL.—The City Engineer has been instructed to prepare plans and estimate of the cost of constructing a bridge over the San Diego River in Mission Valley.

SAN JOSE, CAL.—The County Surveyor has submitted an estimate of $15,000 as the probable cost of constructing a reinforced concrete 3-span bridge across Coyote Creek.

OURAY, UTAH.—The following bids were opened on Jan. 25 by Commissioner of Indian Affairs, Washington, D. C., for constructing a steel bridge at the Uintah and Ouray Agency: (a) steel bridge with concrete floor; (b) steel bridge with wooden floor: Midland Bridge Co., Gibraltar Bldg., Kansas City, Mo., (a) $21,719 and $19,976 for pin connecting span; (b) $19,537 and $18,729, with pin connecting span; Minneapolis Steel & Machinery Co., of Minneapolis, Minn., (a) $20,000, (b) $19,000; Des Moines Bridge & Iron Co., of Des Moines, Iowa, (a) $24,987, (b) $19,979; James J. Burke & Co., of Salt Lake City, Utah, (a) $29,283, (b) $26,270; M. J. Patterson Construction Co., of Denver, Colo., (a) $20,000.

CHAPEAU, QUE.—Bids will be received until Feb. 28 by the Department Public Works, Ottawa, Ont., for constructing piers, abutments and approaches for a highway bridge across the Culbut Channel of Ottawa River here.

SHEDIAC, N. B.—Bids are asked by the Department Public Works until Feb. 28 for the construction of the metal superstructure of the Shediac River mouth bridge, Parish of Shediac, Westmoreland County. Plans, etc., may be seen at the Public Works Department, Fredericton, N. B. J. Morrissy is Chief Comr., Fredericton.

SASKATOON, SASK.—Bids are asked until 5 p. m., Feb. 21, by J. H. Trusdale, City Clk., for the construction of a steel overhead foot bridge at 20th St.

OUTLOOK, SASK.—HILL & SONS have been awarded contract for the construction of the pedestals of the steel viaduct which the Canadian Pacific Ry. will construct across the South Sackatchewan River. Length of bridge, 3,000 ft.; number of piers, 110.

EDMONTON, ALTA.—Bids are asked by John Stochs, Deputy Minister Pub. Wks., until March 12 for all steel highway bridges required for the year 1910.

BUILDINGS.

GREENFIELD, MASS.—After competition of architects, Marcus T. Reynolds, 100 State St., Albany, N. Y., has been chosen as architect to prepare detailed plans and specifications for the construction of a bank building for the Franklin Savings Institution, at Greenfield, Mass. The new building will be of granite and will be situated on a corner with exposure on three sides. It is stated that the cost will be in the neighborhood of $80,000.

NEW YORK, N. Y.—We are officially advised that the Park Board has awarded the contract for equipping and furnishing the New York Public Library to the CORE CONSTRUCTION CO., 47 and 49 Liberty St., at $543,750. This bid was the lowest of seven. Israels & Harder, Archs., 31 West 31st St., have filed plans with the Building Superintendent for a 12-story office building for the

special occupancy of physicians and dentists, to be erected at 40 to 44 East 41st St., opposite the Lincoln Safe Deposit Building. The owner is Charles M. Warner. The building will be of brick and limestone, finished with mezzanine windows at each story, and a central entrance with a canopy of copper and glass. It will have a frontage of 59.10 ft., and a depth of 86.8 ft., and will cost $300,000.

Plans have been filed for a 6-story elevator apartment house with suites for 49 families, to be erected from designs by Gronenberg & Leuchtag, Archs., on 150th St., 125 ft. west of Broadway. It is to be of brick, limestone, and terra-cotta, with a frontage of 130 ft. and a depth of 86.11 ft. and will cost $175,000.

Percy G. Williams has purchased the Henry Woell property, comprising the block bounded by Howard Ave., Broadway, and Madison St., Brooklyn, at about $150,000. Mr. Williams will take possession Feb. 18, and then expects to start the construction of a vaudeville theater with a seating capacity of between 2,500 and 3,000. Plans are being drawn by W. H. McElfatrick, Arch., 1402 Broadway, New York.

NEW YORK, N. Y.—We are officially advised that the TURNER CONSTRUCTION CO., 11 Broadway, has been awarded the general contract for the 10-story and basement reinforced concrete warehouse to be built for the Pioneer Warehouses at 37 Flatbush Ave., Brooklyn. This building will be 40 × 75 ft. in plan, and will have a brick veneer on the front. Louis L. Firuski is the owner and J. G. Glover is Arch., 166 State St., Brooklyn. Work will be started May 1.

J. M. Gidding & Co., women's apparel dealers, 19 West Fourth St., Cincinnati, Ohio, have leased the Euclid Building, at 564 to 568 Fifth Ave., for a term of 21 years. The lessees intend to make alterations which will involve an expenditure of about $100,000. The entire interior of the structure, which is composed of remodelled private houses, will be rebuilt.

Plans have been filed for an 8-story elevator apartment house to contain suites for 25 families, which is to be built for the Scheer-Ginsburg Construction Co. at 603 to 607 West 113th St. The plans are being prepared by George F. Pelham, 507 Fifth Ave. The structure will cost $200,000. It will have a facade of brick finished with limestone, with terra cotta trimmings, and will have a frontage of 75 ft. and depth of 85.11 ft.

The Hotel Cadillac, at the northeast corner of Broadway and 43d St., is to have a 12-story annex. Wallach Bros., the proprietors, have obtained a long-term lease on the property of Alonzo Hornby, 147 to 151 West 43d St., a plot 60 × 100 ft., adjoining the hotel, which will give it a frontage of 185 ft. on 43d St. and 100 ft. on Broadway.

NEW YORK, N. Y.—We are officially advised that the 694 Broadway Building Co. will erect a 12-story fireproof loft building at 694 Broadway. The structure will face 45.3 ft. on Broadway, 275.7 ft. on Fourth St. and 74 ft. on Lafayette St. It will be constructed of light brick with stone trimmings and will cost $500,000. The contract has been let to the THOMPSON-STARRETT CO., 49 Wall St., New York. The work of razing the buildings now occupying the site will start in May. Clinton & Russell, 32 Nassau St., New York, are Archs.

The plans have been approved for an addition to Public School No. 19, South Third and Keap Sts., Brooklyn, containing an auditorium, to cost $190,000.

PATERSON, N. J.—We are officially advised that the proposed apartment house to be erected on the south side of De Grasse St., east of Hamilton St., Paterson, by Isaac Wrubel, of Middletown, Conn., will contain two buildings of 32 apartments. These buildings will contain modern plumbing, wiring and heating systems and will have stone and brick fronts. Wm. D. Johnson, Inc., 26 State St., Hartford, Conn., is Arch. The contract for the construction has been let to FRANK B. GILBRETH, INC., 60 Broadway, New York. Work will start soon.

PHILADELPHIA, PA.—The contract for the construction of a marine barracks at the Navy Yard, Philadelphia, has been awarded to P. J. HURLEY, 1216 Chancellor St., Philadelphia, Pa., at $118,440. The plumbing fixtures to be installed were not specified.

Plans are being prepared by John G. Brown for a fireproof warehouse to be erected at 919 and 921 Arch St., bought recently by Asam Bros. The building will be six stories and basement, 30 × 194 ft., and will cost about $55,000.

John W. De Long, owner of the Delmar Apartment House, at Chelten Ave. and Morris St., has purchased from the Houston Estate a plot of ground 256 × 100 ft., at the northeast corner of Morris and Rittenhouse Sts., on which he will build twelve 3-story apartment houses, each 20 × 80 ft., at a cost of about $150,000. Each building will contain three suites of apartments, with front and rear porches, and provided with all modern accommodations. The lot on which they will be built is directly in the rear of the Delmar Apartments.

J. Fred Zimmerman, Sr., of the theatrical firm of Nixon & Zimmerman, has taken title to the property at 8211 Market St. and those adjoining, on a lot 60 × 250 ft., for a nominal consideration. Plans are now being completed by A. E. Westover, Keith Bldg., for the erection on the site of a hall building on the front lot and a 1-story theater in the rear, which will cost upward of $100,000.

PITTSBURG, PA.—Bids are asked until 5 p. m., Feb. 21, by the Armory Board, Harrisburg, Pa., for the erection and completion of an armory to be erected at Pittsburg, Allegheny County, Pa., from revised plans and specifications of the W. G. Wilkins Co., Archs., Westinghouse Bldg., Pittsburg. B. W. Demning is Secy.

WASHINGTON, D. C.—Bids are asked by the District Commissioners until noon, Feb. 17, for constructing the John Eaton School building, No. 160, at the northeast corner of Lowell and 34th Sts, Lots 2 to 11, inclusive, Block 4, Subdivision of Cleveland Heights.

Bids are asked until noon, Feb. 23, by the District Commissioners for constructing an 8-room school building on Lots 20-24, Square 388, at corner of Tenth and E St., S. W.

By a recent purchase of additional ground, joining the original site purchased by the Supreme Council of the Ancient and Accepted Scottish Rite Masons of the Southern Jurisdiction, a larger building than that at first was planned will be constructed for the body, in 16th St., between L and M. Sts., N. W. The site is now enlarged to a frontage of 136 ft. on 16th St. by 115 ft. deep. Nearly the entire ground will be covered by the proposed temple of the Third-third Degree Masons, which will be constructed of white marble and is estimated to cost about $1,000,000. Plans for the building will be obtained by competition and the tentative designs will be submitted to the Supreme Council. The proposed building will be 90 ft. in height. It is hoped to have the temple completed by October, 1911.

NORFOLK, VA.—Bids are asked until 11 a. m., March 1, by Col. F. L. Denny, Q. M., for the erection and completion of a brick stable at the Marine Barracks, Navy Yard, Norfolk, Va.

LEXINGTON, KY.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., March 25, for the extension, remodeling, etc., (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Lexington.

Col. Milton Young has announced his intention to erect a 6-story hotel, containing 150 rooms, and to cost $300,000. The site selected is at High and Limestone Sts. A company is being formed and will be incorporated in a few days.

OTTAWA, OHIO.—Bids will be received by the Commissioners of Putnam County, Ohio, at their office in Ottawa, Ohio, until noon, March 1, for an issue of $180,000 of courthouse bonds of said county. Joseph Kersting is County Audr.

COLUMBUS, OHIO.—Bids are asked by the Board of Education, close March 7, for the erection of two school buildings. Each of the structures will cost about $90,000.

AKRON, OHIO.—Bids are asked by George B. Post & Sons, Scofield Bldg., Cleveland, Ohio, until Feb. 27, for constructing a 7-story store, office and bank building, with a ground plant of 170,000 sq. ft. The building will cost $300,000, and the equipment $50,000. The contract for steel work has been let to the RIVERSIDE BRIDGE CO., Martins Ferry, Ohio. The structure will be built by the Second National Bank.

CINCINNATI, OHIO.—A $200,000 apartment building may be erected at the northwest corner of Reading Road and South Crescent Ave., Avondale, by Valentine Duttenhofer, Jr. The lot is 200 × 300 ft. Sketches for the building have been made by S. S. Godley, Arch., Reave Bldg. Two plans are under consideration. Both include an improvement which will contain 24 suites of various sizes. One scheme is to take in all but 25 ft. of the corner lot and the other plan is to build an improvement 200 ft. square, leaving the other portion of the lot for lawn. In either event the structure will have about 100 rooms. Mr. Duttenhofer expects to make a definite announcement of his plans in about two weeks.

H. KARG, of Westerville, Ohio, has secured the contract last week for the erection of a $125,000 high school building to be erected at Cincinnati.

SCOTTSBURG, IND.—The Indianapolis & Louisville Traction Co. has awarded the contract for building a freight and passenger station at Scottsburg to JOHN T. WILEY & SON, of Louisville, Ky. The station will be built at the junction of the Cincinnati, Madison & Western Traction line, which is to be built from Scottsburg to Madison this spring, and the line of the Indianapolis & Louisville Co. The office of the train dispatcher for both roads will be in the new station, which is to be two stories high. A special siding will be put in to facilitate the handling of freight.

*CONNERSVILLE, IND.—Bids are asked until 2 p. m., March 23, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Connersville, Ind.

DETROIT, MICH.—Albert Kahn, Arch., Trussed Concrete Bldg., Detroit, is taking figures on a 3-story concrete building (Kahn system) for the Detroit & Cleveland Navigation Co., foot of Wayne St., Detroit. A. A. Schautz, Gen. Mgr. New docks will be built also.

*QUINCY, ILL.—Bids are asked until 3 p. m., March 28, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring and standard clock system), of an extension, remodeling, etc., to the U. S. post-office at Quincy, Ill.

BELLEVILLE, ILL.—Bids were received on Feb. 4 for the erection of a 4-story brick business building on the site of the present Thomas House Building. The bid of Bauer Bros. for $50,000 was the lowest. The structure is to be 150x54 ft., and of modern design and construction. The plans do not provide for any interior arrangement on the first, second or fourth floors, but the third floor is to be designed for office rooms. The first two floors are to be used by a department store and the fourth for an auditorium for lodge purposes. The promoters are members of a syndicate headed by Henry J. Fink, bond and real estate broker, Pennsylvania Bldg., Belleville. It is the intention of the owners to have the building completed by fall.

LINCOLN, ILL.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., March 21, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Lincoln.

CHICAGO, ILL.—We are officially advised that Sears-Roebuck & Co. awarded contracts on Feb. 1 for constructing two 6-story additions, each 115 × 233 ft., to the firm's merchandise building. The additions will be of mill construction, the materials used will be brick and terra cotta, and the cost will be $350,000. The contracts follow: Masonry, CHARLES W. GINDALE CO., 3333 La Salle St.; carpentry, F. P. NELSON & SONS CO., 138 Washington St.; structural iron and steel, HANSELL-ELCOCK CO., Archer Ave. and Butler St.; ornamental iron, HEATH, JOHNSON & CO., 127 Ontario St.; plumbing, E. BAGGOT CO., 45 East Lake St. All contractors are of Chicago. Nimmons & Fellows, Marquette Bldg., Chicago, are Archs.

Charles M. Hewitt, Pres. of the Hewitt Mfg. Co., brass founders, has purchased from Theodore P. Shonts, of New York, property at the northeast corner of North State St. and Burton Pl., on which he will erect a residence which is to cost about $100,000. The home will stand on a lot which fronts 60 ft. in State St. and extends eastward 130 ft. Work of erecting the residence is to begin this spring. It is to be three stories high.

R. J. Gunning contemplates the erection of a structure on the site of the present Gunning System offices, 9 Plymouth Pl. The structure will cost about $200,000, and it is the present plan to have it completed in about two years.

ESTHERVILLE, IOWA.—Bids are asked until 3 p. m., March 29, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction, complete, (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. Post-Office at Estherville.

FORT ROBINSON, NEB.—Bids are asked by Malvern Hill Barnum, Constr. Q. M., Fort Robinson, until 11 a. m., March 5, for the construction, heating, plumbing and electric wiring and fixtures for one non-commissioned officers' quarters; also for addition to water main to connect same with post system.

*FORT YELLOWSTONE, WYO.—Bids are asked by Lt. R. M. Parker, Constr. Q. M., until 4 p. m., March 7, for constructing, plumbing, heating and electric wiring hospitals and guard house buildings.

ST. LOUIS, MO.—Six bids were received on Feb. 4 by the Commissioners of School Buildings for constructing the Madison School, at Seventh and La Salle Sts. The lowest bid was $185,000, made by Fred Boeke, 1839 South Ninth St. The Commissioners' estimate was $190,000. The building is to take the place of the old Madison School and branches.

GODFREY & HIRSCH, Wainwright Bldg., have secured the contract from the Police Board for the erection of the proposed Fourth District Police Station at the northeast corner of Tenth and Carr Sts. Their bid was $40,038. The Carr Street Station will be two stories high, of brick and terra cotta, trimmed in marble, and will be 93 × 50 ft. on the ground plan. The second floor assembly room will be cut up, providing for a library, smoking, shower bath and locker rooms. There will be nine cells on the first floor. The Captain's and Lieutenants' offices will be on the Tenth St. side. The station will be adjoined on the Carr St. side by the patrol wagon building, the second floor of which will be devoted to the matron's quarters. The patrol wagon house will be 30 × 50 ft. The plans and specifications for the new building were drawn up by George W. Pipe, Supt. of Police Dept. Bldgs.

The Savoy Investment Co., 812 Olive St., will erect a $90,000 5-story fireproof apartment building, to occupy the northwest corner of Union and Delmar Aves., to be known as the Savoy Apartments. The building is to occupy a lot 100 × 100 ft. This structure will leave vacant to the west a lot 103 × 142 ft., and to the north a lot 80 × 142 ft., both of which lots will later be covered with apartment structures. H. F. Roach, 915 Olive St., drew the plans for the structures; HILL & O'MEARA, Syndicate Trust Bldg., were awarded the contract, and F. A. Banister will be Supt. of Constr. for the Savoy Investment Co., which is one of the Holbrook-Blackwelder enterprises. Each floor will contain two apartments, making ten suites in all. Each suite will consist of eight rooms, including reception hall and three bathrooms. Electric elevators will serve the building. The structure will front on Delmar, on Union and on Savoy Court, and the heating plant, which already serves the other structures in the colony, will serve the new building also. The building is shown by the architect's drawings to be of red brick, trimmed in cut stone, and crowned by a cut-stone battlement. Over the windows are heavy drip moldings of flat arch Gothic design.

HOUSTON, TEX.—We are officially advised that the contract for the proposed city auditorium at Houston has been awarded to H. L. STEVENS & CO., of Houston. The building will cost about $300,000.

LAWTON, OKLA.—The following bid was received by the Assistant Secretary of the Department of the Interior, Washington, D. C., on Feb. 2 for the construction of a 10-room school building for the north addition to the city of Lawton, Okla.: Newport Contracting & Engineering Co., Newport News, Va., $43,000. Time, Sept. 1, 1910.

FORT BAYARD, N. MEX.—Bids are asked by Capt. S. P. Vestal, Constr. Q. M., until 11 a. m., March 15, for the complete construction, plumbing, heating, electric light wiring and electric light fixtures for one double and one single ward building, three double and one single officers' quarters.

COALINGA, CAL.—The Board of Education of Coalinga will advertise for bids for the construction of a brick grammar school building. The structure will be 60 × 120 ft., two stories and basement high, and will contain nine class rooms and an assembly room. The exterior will be of cream-colored pressed brick and the building will have a cement basement, a composition roof, a system of heating and ventilation and modern school equipment. It will cost $40,000.

SAN DIEGO, CAL.—The Masonic Temple Association has awarded contract to R. P. SHIELDS & SONS, for erection of a building at Fifth and Ash Sts., at $80,000. Plans have been drawn by Fredk. P. Burnham, Arch., Pacific Electric Bldg., Los Angeles.

SAN MATEO, CAL.—The Trustees of the San Mateo Union High School District have issued a call to architects to compete in a prize contest for the preparation of plans for the proposed school building, bonds for which were issued and sold recently for $100,000. There will be three prizes. The architects submitting plans of first merit will be employed to supervise the construction of the building and will receive 5% on $80,000, the cost of the building without the furnishings and extras. The architects whose plans are second and third in favor will receive $150 and $100 respectively. The plans, specifications, estimates and data of the contestants will be opened by the Board Feb. 21.

SAN FRANCISCO, CAL.—The Board of Directors of the Southern Pacific Co., at a recent meeting held in New York, authorized the construction of the west wing of the Southern Pacific Hospital at Baker and Fell Sts., in this city, and set aside $150,000 for that purpose. This will complete the railroad hospital, the total cost being $1,000,000. The west wing will be exactly like the east wing in outside appearance. It will be four stories high, of reinforced concrete frame, and the outer walls are to be of gray brick. The new wing will contain 100 extra beds, making a total of 225 in the institution. The fourth floor on this wing will be devoted to private rooms, the other floors being used as wards. Contracts will be let at once, the work to be under the supervision of Dr. F. K. Ainsworth.

A $120,000 building will be erected for Ignatz Steinhart on the north line of Sutter St., near Hyde St. It will be a brick building six stories high, with a basement. The contract has been let to the LINDGREN CO. McDougall Bros., Russ Bldg., are Archs.

The lot at the northwest corner of Polk and Turk Sts., 137½ × 137½ ft., has been purchased by the German House Association as the site for a hall for all the German societies of San Francisco. It is proposed to erect a building of Class A type, nine stories high, which will be arranged for fraternal halls for all of the local German societies, an auditorium, assembly halls, drill room, gymnasium, banquet hall and kitchen and the accessories for the fraternal societies. The financing of the enterprise has been fully provided for, the German Savings & Loan Society agreeing to furnish $250,000, so that construction of the building may begin without delay. Stock has been issued by the association, which will be taken up by the various societies and their members to the amount of $500,000. The Central Trust Co. is backing the association also. Plans are in preparation for the building, and in a short time the preliminary work will be completed.

MONTREAL, QUE.—W. D. Barclay, Gen. Mgr. Canadian Northern Ry. of Quebec, has announced that plans for a terminal station and tracks in Montreal, costing about $5,000,000, have been prepared and will be forwarded to Toronto to Mackenzine & Mann, who control the road, for approval.

TORONTO, ONT.—Bids are asked until noon, March 1, by J. O. Reaume, Minister of Public Works, Ontario, for constructing an addition to the Ontario Parliament Buildings at Toronto. George W. Guinlock is Arch., Temple Bldg., Toronto.

Bids are asked by Gordon & Helliwell, Archs., Confederation Life Bldg., Toronto, until noon, Feb. 19, for the erection of a church building on the corner of Queen St. West, and Beaty Ave., Toronto, for the Church of the Epiphany.

The Y. M. C. A. announces that four buildings will be erected in different parts of the city, costing $600,000. William Garside is Pres., Toronto.

The Toronto General Hospital Building will erect the following buildings, it is stated: Main building, emergency building, out-patient department, private building, nurses' home, Burnside building for obstetrical cases, servants' quarters, central power-house, pathological building. The public wards of the hospital will contain 449 beds. The private and semi-private wards will be in a separate and distinct building, with a capacity of 98 beds. J. W. Flavelle, P. C. Larkin and W. E. Rundle are Trustees of the Toronto General Hospital.

GODERICH, ONT.—Bids are asked by the Masonic Temple Association of Goderich, Ltd., until noon, Feb. 21, for the erection of a Masonic Temple, 58 × 70 ft., three stories and basement, in the town of Goderich; building to be of concrete, brick and stone. Plans and specifications may be seen at the office of Andrew Porter, Secy.-Treas., North St., Goderich.

FORT WILLIAM, ONT.—John Whalen, owner of a theatre at Port Arthur, will erect a similar one here, costing $75,000.

SASKATOON, SASK.—The University of Saskatchewan will call for bids soon for the college building, students' residence, power-house, live stock pavilion, agricultural engineering building, horse barn and cattle barn to be built at the University. Brown & Vallance, Canada Life Bldg., St. James St., Montreal, are Archs.

EDMONTON, ALTA.—The general contract for building the Senate Hotel on the corner of Clara St. and Fraser Ave. has been awarded to G. C. PORTER, of this city, at $50,000. Plans call for a 3-story building of pressed brick with Roman stone trimmings.

WATER-SUPPLY—IRRIGATION.

(denotes that this work is advertised in Engineering News.)*

WATERBURY, CONN.—Bids will be received until March 1 by the city for laying the c.i. pipe from the Morris reservoir along west side of Wigwam reservoir.

NEW YORK, N. Y.—Bids are asked by Henry S. Thompson, Comr. Water Supply, Gas and Electricity, until 2 p. m., March 2, for furnishing, delivering and laying water mains in various streets in the Boroughs of Manhattan and The Bronx.

WATERVLIET, N. Y.—We are officially advised that F. J. Keis, of Solomon-Norcross Co., Candler Bldg., Atlanta, Ga., is making investigations here for the purpose of preparing plans for the reclamation of Dry River and prevention of flood damages. Work will consist of two storage dams and a large storm water diversion sewer.

BUFFALO, N. Y.—Bids are asked at the office of the Department of Public Works until Feb. 18 for eight 750-HP. water tube boilers for the pumping station, Bureau of Water, foot of Porter Ave.; for coal and ash handling machinery for new pumping station, Bureau of Water; for one 30-ton electric traveling crane for new pumping station at the foot of Porter Ave.; for feed pumps, feed water heater and purifying system for pumping station at foot of Porter Ave.; for five 30,000,000-gallon vertical, triple expansion engines for Buffalo waterworks. A separate proposal must be made for each part of the work and supplies included. Plans and specifications may be seen and printed forms can be secured on application to the Bureau of Water. F. G. Ward is Comr. Pub. Wks.

OGDENSBURG, N. Y.—The State Legislature has been asked to appropriate $45,000 for the construction and equipment of a sand filtration plant in connection with the water system of St. Lawrence Hospital here.

NIAGARA FALLS, N. Y.—The Board of Water Commissioners have received bids for the construction of the filtration plant. The three low bidders are: United Water Improvement Co., Pennsylvania Bldg., Philadelphia, Pa., $175,000; Fred L. Ley & Co., 29 Broadway, N. Y., $210,000; American Ozone Co., $287,000.

WALLINGTON, N. J. (Rutherford post-office).—Bids will be received by the Mayor and Council until Feb. 28 for the construction of a reinforced concrete water reservoir and extension of artesian wells from plans on file in the office of A. L. Pettersen, Boro. Engr., Passaic. Chris. De Keyser is Boro. Clk.

MEADVILLE, PA.—Bids for the erection of a brick or cement chimney at the city pumping station will be received until noon, March 7, at the office of the Water and Light Department. Harry Ellsworth is Secy.

TRYON, N. C.—The Tryon Electric & Water-Works Co. contemplates the construction of a standpipe or reservoir.

LAFAYETTE, GA.—The City Council contemplates the construction of water-works and invites correspondence. C. J. Hammond is City Recdr.

FORT MORGAN, ALA.—Bids are asked until 1.30 p. m., March 7, by Capt. H. B. Chamberlain, Q. M., U. S. A., Fort Morgan, for the construction of three reinforced concrete cisterns, one 30,000-gallon and two 8,500-gallon capacity, here.

MILLERSBURG, KY.—The city has engaged F. O. Siebert, 215 East Main St., Lexington, Ky., to prepare plans for the construction of water-works.

LOUISVILLE, KY.—Theodore A. Leisen, 459 Third Street, Ch. Engr., Louisville Water Co., has been instructed to prepare plans and estimates for improvements as follows: A 30,000,000-gallon vertical steam turbine-driven centrifugal pump at river station No. 1, with necessary improvements and alterations to station; a concrete and stone intake crib and tower with screen chambers for supply in both stations Nos. 1 and 2, and connection for future station when required; cleaning Crescent Hill reservoir, cementing and grouting bottom and slopes of north reservoir and construction of wier tower and improvements to conduit between reservoirs; new stable and other changes and additions to buildings at Third St., and provisions for better facilities in storing coal at Crescent Hill pumping station

NOTTINGHAM, OHIO.—Bids are asked until noon, Feb. 18, by J. C. Steinickle, Village Clk, for the construction of water mains in several streets. J. B. Davis & Sons, 207 Arcade, Cleveland, Ohio, are Engrs.

DAYTON, OHIO.—Bids are asked by the Board of Public Service, William O. Budroe, Secy., until Feb. 18 for 575 tons of 8 to 12-in. c.-i. pipe and 50 tons ci.-i. specials.

LORAIN, OHIO—The City Council has authorized issuing $50,000 of bonds to extend the intake pipe at the water-works. Lorain's water supply is taken from a crib 1,200 ft. from the shore of Lake Erie and it is purposed to extend the intake several hundred feet beyond the break-water arm, insuring water free from impurities.

NEWPORT, OHIO.—The Clifton District Trustees on Feb 5 voted to issue $12,000 of bonds for the purpose of constructing a water-works system in the district. It is the intention of the city to construct a standpipe in Clifton.

CHICAGO HEIGHTS, ILL.—Bids are asked until 8 p. m., Feb. 18, by W. E. Lennertz, City Clk, for new pumping equipment, including four deep well pumps, two service pumps transformers, switchboards, one drilled well, etc.

CHICAGO, ILL.—The Sanitary District of Chicago has awarded contracts for machinery for the pumping station at 39th St. and Lake Michigan as follows: To WESTINGHOUSE ELECTRIC & MFG. CO., 171 LaSalle St., Chicago, for a motor generating set at $3,280, and for an induction motor at $6,170, and to CHAS. F. ELMES ENGINE WORKS, 50 Morgan St., Chicago, for gearing at $1,495, and for shafting and bearings at $1,275. Bids for the testing transformers have been rejected as excessive. Bids were opened on Jan. 26.

BURLINGTON, WIS.—Bids are asked until 2 p. m., March 15, by P. J. Hurtgen, City Engr., for the extension of the water-works system; the work includes 1,334 lin. ft. of 4-in. water pipe; four 4-in. gates and valve boxes; one 6-in. gate and valve box; one hydrant; two hydrants reset.

*ST. PAUL, MINN.—The Board of Water Commissioners have for sale a 10,000,000-gallon duplex compound condensing Deane steam pump, including condenser and feed water pump. Bids will be received until March 7. For details see advertisement in this issue.

SABETHA, KAN.—Bids will be received until Feb. 21 by F. M. Sherwood, City Clk., for furnishing material and constructing water-works. Separate bids will be received as follows: Furnishing c.-i. pipe and special casting f.o.b. cars Sabetha; furnishing material and erecting steel tower and tank of 70,000-gallon capacity on tower 125 ft. high. Burns & McDonnell are Engrs., Scarritt Bldg., Kansas City, Mo.

FORT RILEY, KAN.—Bids are asked until 10 a. m., March 8, by Capt. W. M. Whitman, Constructing Q. M., U. S. A., for the construction of a boiler house and pump pit, and furnishing and installing boiler pumping engine and water main at this post.

COFFEYVILLE, KAN.—Bids will be received by Rosa Bell, City Clk., until 5 p. m., Feb. 21, for the development and installation of a ground water supply. F. W. Yale is City Engr.

FORT ROBINSON, NEB.—See item under Buildings.

BALTIS, S. DAK.—Bids will be received until March 3 by the Board of County Commissioners, at Sioux Falls, Thomas McKinnon, Chn., for furnishing f.o.b. cars, Baltis, steel regulating gates and appurtenances.

VANDALIA, MO.—Bids will be received until Feb. 24 by J. O. Barrow, City Clk., for the construction of water-works and a sewer system from the plans of Fuller & Colte, Chemical Bldg., St. Louis, Mo. The water-works will consist of c.-i. pipes, valves and hydrants, steel tower and tank, deep well pumping apparatus. The sewer system will consist of vitrified sewer pipe, manholes and antiseptic tank.

FORT CROCKETT (Galveston post-office), TEX.—Bids will be received by Capt. P. Whitforth, Q. M., U. S. A., Fort Crockett, until March 7 for constructing water distributing system, roads, walks, storm sewers.

ARDMORE, OKLA.—Bids are asked until noon, Feb. 21, by G. H. Bruce, City Clk., for the construction of sedimentation basins and filtration plant and for the extension of the present water main at the city lake.

ALTUS, OKLA.—See item under Light and Power Plants.

ROSLYN, WASH.—Proposal for pipe for Roslyn, appearing on advertisement page 58 is withdrawn. Later advices will be noted.

SEATTLE, WASH.—See item under Streets and Roads.

*PORTLAND, ORE.—Bids will be received by the Water Board, Frank T. Dodge, Supt., until March 8 for furnishing material and constructing steel conduit from headworks to Mt. Tabor, a total approximate distance of 24 miles, and consisting of 52,915 lin. ft. of 52-in. and 75,379 lin. ft. of 44-in. steel pipe and specials. Advertised last week. D. Clarke is Engr., Water Board. Specifications and profiles are on file at the office of Engineering News, New York.

COTTAGE GROVE, ORE.—The proposed gravity water system will cost about $100,000. W. J. Roberts is Consult. Engr., Medford, Ore.

SAN BERNARDINO, CAL.—William Brown, Water-Works Engr., has completed plans for replacing flumes on Fairbanks ranch with pipe, and about 4½ miles of pipe will be laid. Estimated cost, $12,000.

BRAWLEY, CAL.—The city proposes to construct water-works. Estimated cost, $40,000. C. J. Park, of Brawley, is Engr.

COLUSA, CAL.—The following contracts have been let by the Town Trustees for the new water system: F. C. ROBERTS CO., San Francisco, Cal., at $16,078, for the pumping plant and tower; STANDARD ENGINEERING CO., at $31,857, for pipes and excavations. Work will begin in the spring.

SALT LAKE CITY, UTAH.—We are officially advised that the City Council received bids on Feb. 4 as follows for the construction of the City Creek aqueduct: Fred Dreyer, $26,257; Zerbe & Walker, $25,801; McKay & Reed, $32,170; P. J. Moran, $25,192; Jas. Kennedy Construction Co., $26,480; Gillis Constructing Co., $22,216; Louis C. Kelsey, $24,746; S. Birch & Sons Constructing Co., $24,847.

BOISE, IDAHO.—The Secretary of the Interior has awarded contract to the ASH GROVE LIME & PORTLAND CEMENT CO., of Chanute, Kan., for furnishing 17,000 bbls. of cement for use in connection with the government irrigation projects in the Idaho district. Under the terms of the contract the cement is to be furnished at 95 cts. per bbl., f.o.b. cars at Chanute.

TORONTO, ONT.—Bids will be received until Feb. 22 by G. R. Geary, Mayor and Chn. Bd. Control, for furnishing 465 lin. ft. of 42-in. and 465 lin. ft. of 66-in., 160 lin. ft. of 36-in. and 8 lin. ft. and 6-in. c.-i. pipe and specials.

SEWERAGE.

(denotes that this work is advertised in Engineering News.)*

NEW YORK, N. Y.—Bids are asked until 11 a. m., Feb. 24, by Cyrus C. Miller, Pres. Boro. The Bronx, for constructing a sewer and appurtenances in Eden Ave., between East 174th and East 173d Sts., and for constructing a receiving basin and appurtenances at the southwest corner of Andrews Ave. and Fordham Road.

WATERVLIET, N. Y.—See item under Water Supply—Irrigation.

BUFFALO, N. Y.—Bids will be received by the Department of Public Works until 11 a. m., Feb. 23, for the construction of a tile sewer in South Ogden St. Francis G. Ward is Comr.

LONG ISLAND CITY (L. I.), N. Y.—Bids are asked by Lawrence Gresser, Pres. Boro. of Queens, until 11 a. m., Feb. 28, for constructing sewers and appurtenances in various streets.

NIAGARA FALLS, N. Y.—The READ-CODDINGTON CO., of Niagara Falls, has secured contract for constructing tunnel sewer in Cleveland Ave., bids opened on Feb. 1, at the following prices: 1,230 lin. ft. of 7x9 ft. rock tunnel, $19.80; 160 lin. ft. 8x10 ft. shaft, $28; two shaft coverings, complete, $150; 100 cu. yds., overhaul, 10 cts.; 40 lin. ft. 36-in. tile in concrete, $4; 15 lin. ft. 30-in. tile in concrete, $4; 20 lin. ft. 24-in. tile in concrete, $6; 85 lin. ft. 6-in. tile in concrete, 50 cts; 20 cu. yds. Rubble masonary, $4; 20 cu. yds. rock excavation, $3; total, $29,347. George S. Neilson, of Niagara Falls, bid for this work $31,292.

CUSANO & DOWER, of Niagara Falls, have secured contract for constructing sewer in Portage Road at the following bid: 1,046 lin. ft. of 15-in. tile, $1.10; 1,258 lin. ft. 12-in. tile, 75 cts; 1,215 lin. ft. 10-in. tile, 65 cts.; 14 manholes each, $35; ten catch basins, each, $35; 3,000 cu. yds. rock excavation, $2.75; total, $11,974. Other bids were: William Ruffran, Niagara Falls, $11,990; J. E. Beard, Buffalo, 13,416; George S. Neilson, Niagara Falls, $13,567; W. A. Shepard & Co., Niagara Falls, $12,526. Bids were opened on Feb. 1 by the city. R. A. McClanathan is City Engr.

GLENOSBORNE (Sewickly post-office), PA.—Bids are asked by L. E. Chapin, Consult. Engr., 1017 Frick Bldg., Pittsburg, Pa., until noon, March 10, for the construction of 6,145 ft. of 8 and 10-in. sanitary sewers, 18 manholes and one flush tank.

GASTONIA, N. C.—The city has engaged the Solomon-Norcross Co., Candler Bldg., Atlanta, Ga., to prepare plans and specifications and make preliminary survey of a site for the proposed septic tank at sewer outlet on the city farm. Summey C. Cornwell, Engr., Dallas, N. C., has been employed to make survey.

FLORENCE, S. C.—Bids are asked by the city until March 3 for the construction of a sanitary sewer system, including 19 miles of pipe sewers from 8 to 18-in. diameter, and disposal plant, complete. H. S. Jaudon, Savannah, Ga., is Engr.; H. K. Gilbert is Chn. Sewer Comrs.

MADISON, FLA.—H. S. Jaudon, of Savannah, Ga., is preparing plans for the construction of a sewer system here. Estimated cost, about $22,500.

MONTGOMERY, ALA.—The city has awarded contract to J. N. MITCHELL, of Montgomery, instead of to J. Hodgson as erroneously stated last week, for construction of 5,900 ft. of sewer in O'Connelly and Thurman Sts., at $9,076.

CLEVELAND, TENN.—Bids are asked until April 1, by the city, for the construction of a sewer system and disposal plant. The Solomon-Norcross Co., Atlanta, Ga., is Engr. Estimated cost, $35,000.

BOWLING GREON, KY.—The city contemplates constructing a sewerage system. G. E. Townsend is Mayor.

*MOUNT STERLING, KY.—Bids will be received by the City Clk until 1 p. m., March 1, for furnishing all materials and laying complete about 9½ miles of sewers, varying in size from 6 to 24-in. in diameter, together with all manholes, lampholes, flush tanks, etc., also reinforced concrete septic tanks. Specifications, instruction to bidders and blank forms of bidding sheets may be obtained and plans and profiles may be seen at the office of R. G. Kern, Mount Sterling, Ky., or at the office of Charles E. Collins, Consult. Engr., Drexel Bldg., Philadelphia, Pa. Advertised last week.

*LOUISVILLE, KY.—Bids will be received by the Commissioners of Sewerage, P. L. Atherton, Chn., until noon, March 4, for the construction of Sect. "A," Castlewood sewer, Contract 61. For details see advertisement in this issue. J. B. F. Breed, Ch. Engr., 805 Equitable Bldg., Louisville; Harrison B. Eddy, Consult. Engr., 14 Beacon St., Boston, Mass.

VINCENNES, IND.—Plans, specifications and estimates will be received until March 2 by the Board Public Works, C. L. V. Tucker, Clk., for a complete system of both sanitary and storm water sewers.

ELGIN, ILL.—During 1910 the city proposes to construct sewers as follows: Fifth Ward sewer, $88,000; Villa St. sewer, $6,000; Locost St. sewer, $9,000, and Seventh Ward sewer, $72,000.

MOMENCE, ILL.—The city proposes to spend about $30,000 for pipe and cement sewers. H. E. Vail is City Engr.

CHICAGO, ILL.—We are officially advised that bids were opened as follows by the Sanitary District of Chicago on Feb. 2 for the construction of a conduit in West 39th St., to be either brick or concrete, 14 ft. high and 12 ft. wide, approximately 2,340ft. long: (a) brick, (b) concrete—JOHN W. FARLEY & CO., 134 Washington St., Chicago, (a) $94,852, (b) $78,057, awarded contract; National Contracting Co., 188 Madison St., Chicago, (a) $94,612, (b) $94,705; American Engineering & Construction Co., 112 Clark St., Chicago, (a) $[illegible],991, (b) $91,434; Federal Improvement Co., 217 LaSalle St., Chicago, (a) $99,015, (b) $97,282; Nash Bros., 84 LaSalle St., Chicago, (a) $101,837, (b) $101,162; James [illegible] Lynch, Chicago, (a) $107,535, (b) $102,[illegible]5. L. J. Bryon is Clk.

BURLINGTON, WIS.—Bids are asked until 2 p. m., March 15, by P. J. Hurtgen, City Engr., for sanitary sewers and storm sewers. The first includes 1,861 lin. ft. of 10-in. vitrified pipe sewer; 1,073 lin. ft. of 8-in. vitrified pipe sewer; 560 lin. ft. of 6-in. vitrified pipe sewer; eight manholes; two lampholes. The latter includes 7[illegible] lin. ft. of 12-in. vitrified pipe sewer; 3[illegible] lin. ft. of 10-in. pipe sewer; 300 lin. ft. of 12-in. vitrified pipe sewer; five manholes; twelve street inlets.

DES MOINES, IOWA.—Surveys have been started for a combined sewer system for a large area in East Des Moines, the outlet probably to be below the business part of city, and drain low lands which at present have but a slight surface drainage and several open ditches. George P. Pohlman is City Clk.

MISSOURI VALLEY, IOWA.—Bids will probably be received in March for the construction of a sewer system here. Estimated cost, about $12,000. Iowa Engineering Co., Clinton, are Engrs.

HOLTON, KAN.—Bids will be received until Feb. 23 by the Mayor and City Council for the construction of a sewer system and disposal works. S. H. Newell is City Clk.

HAYS, KAN.—We are officially advised that the city has retained the W. K. Palmer Co., Engrs., Dwight Bldg., Kansas City, Mo., to make survey and prepare plans for the construction of a sanitary sewer system.

OMAHA, NEB.—The OFFERMAN PLUMBING, HEATING & CONSTRUCTION CO., 212 N. 25th St., South Omaha, Neb., has been awarded contract, at $140,000, for the completion of the Mud Creek and Jette Creek sewers.

WYMORE, NEB.—We are officially advised that the W. K. Palmer Co., Dwight Bldg., Kansas City, Mo., has been retained by the city to make a survey and prepare plans for the construction of a sanitary sewer system.

VANDALIA, MO.—See item under Water Supply—Irrigation.

KANSAS CITY, MO.—James L. Darnell, City Engr., has prepared complete topographical map of the proposed sewer system to drain 60 square miles. The lateral sewers are to connect with main trunk sewers and the sewage will be conveyed to a point at the confluence of the Blue River with the Missouri River. If the government prohibits emptying of sewage into Missouri River, acreage around mouth of Blue River is to be utilized for sewage-disposal plant. Total estimated cost between $300,000 and $400,000. George W. Fuller, Engr, 170 Broadway, New York, was employed as consulting engineer in mapping drainage areas, elevations, water sheds, estimates of water-fall, etc.

FORT CROCKETT (Galveston post-office), Tex.—See item under Water Supply—Irrigation.

ALTUS, OKLA.—See item under Light and Power Plants.

MADILL, OKLA.—The city has voted $20,000 of bonds for sewer construction.

SPOKANE, WASH.—The Cannon Hill Co., Arthur D. Jones, Empire State Bldg., is taking bids for the construction of lateral sewers in Cannon Hill Park. Estimated cost, $50,000.

SEATTLE, WASH.—See item under Streets and Roads.

LODI, CAL.—The City Trustees have accepted the plans of H. H. Henderson, of Stockton, for the construction of the proposed sewer system. Contract will be let at once.

RIVERSIDE, CAL.—The City Council has passed an ordinance providing for the construction of a main sewer of 8 to 16-in. vitrified pipe.

HALIFAX, N. S.—The City Council has voted $20,000 for sewer work.

FOREIGN.—Information has been received by the Bureau of Manufacturers, Dept. Commerce and Labor, in regard to certain contracts soon to be let in a large foreign city in connection with the establishment of a drainage system. The specifications for this equipment will be given out shortly and bids will be received during a period of three months after the specifications are published. The value of the machinery will be about $500,000, and estimates will be considered from those firms alone that have done the same amount of similar work within the past ten years. A contract for five years is also to be entered into with a company for the draining, by the compressed-air system, of the local sewers. The value of this contract will be about $1,500,000. In applying to the Bureau of Manufacturers, Washington, D. C. for address refer to File No. 4521.

GARBAGE DISPOSAL.

NEW YORK, N. Y.—Bids were received on Feb. 8 by William H. Edwards, Comr. St. Cleaning, for snow removal in the Boroughs of Manhattan, Brooklyn and The Bronx. Contracts have been awarded as follows: Manhattan, WILLIAM BRADLEY, 1 Madison Ave., at 75 cts. per cu. yd.; Brooklyn, NEWMAN & HOLMES, at 54 cts. per cu. yd.; The Bronx, P. J. KANE & CO., 735 East 150th St., at 45 cts. per cu. yd.

TOPEKA, KAN.—The city proposes to construct a garbage crematory. Estimated cost, about $17,000. C. B. Burge is City Clk.

SALEM, ORE.—The city is considering the construction of a garbage crematory.

MOOSE JAW, SASK.—Bids are asked by the city until 8.30 p. m., Feb. 21, for two 2-horse street sprinklers, steel tanks. W. F. Heal is City Clk.

STREETS AND ROADS.

(denotes that this work is advertised in Engineering News.)*

HARTFORD, CONN.—The Board of Street Commissioners has voted to lay one-half mile of asphalt-macadam road on Farmington Ave. this season.

*ALBANY, N. Y.—Owing to lack of space in this issue, the list of bids received on Feb. 14 by the State Highway Commission and the awards of contracts for construction of state highways will be given next week.

NEW YORK, N. Y.—Bids are asked by Cyrus C. Miller, Pres. Boro. of The Bronx, until 11 a. m., Feb. 24, for regulating, grading, setting curbstones, flagging the sidewalks, laying crosswalks, building approaches, drains, walls, etc., and placing fences on East 222d St., from Bronxwood Ave. to Carpenter Ave.; for paving with asphalt blocks on a concrete foundation the roadway of College Ave., from East 165th St. to East 166th St., and setting curb where necessary; for furnishing and delivering lumber to the Bureau of Highways; for furnishing and delivering broken trap-rock stone and screenings.

NEW YORK, N. Y.—The following bids were received on Feb. 14 by the President of the Borough of Queens for regulating, grading, curbing, recurbing and laying sidewalks and crosswalks on Ditmas Ave., from Steinway Ave. to Shore Road, First Ward: Joseph Boyce, $40,500; Astoria Contracting Co., $38,130; H. B. Peace, Flushing, $32,296; Joseph L. Sigretto, $39,819; Thomas F. Tuohy, 89 Main St., Flushing, $43,965; Dunbar Contracting Co., $39,620; H. J. Mullen, $35,376; Hicks-Johnson Co., 150 Jackson Ave., Long Island City, $33,337.

Bids were received at the same time and place for regulating, grading, curbing and laying sidewalks on Crescent St., from Webster Ave. to Broadway, First Ward: Atlanta Contracting Co., $23,125; Cooper & Evans Co., 220 Broadway, New York, $25,522; Guiseppe Fusco, $26,206; J. D. Daly, $21,742; Thomas F. Tuohy, 89 Main St., Flushing, $25,244; Astoria Contracting Co., $15,630; H. B. Peace, Flushing, $21,384; H. J. Mullen, $36,324; J. F. Clancy, $21,173; Hicks-Johnson Co., 150 Jackson Ave., Long Island City, $20,014; Greer Contracting Co., $23,397; J. A. Boyce, $20,825; Dunbar Contracting Co., $21,113; Joseph L. Sigretto, $28,342.

*ASBURY PARK, N. J.—Bids are asked by the Board of Chosen Freeholders of Monmouth County, N. J., at the office of Howard D. Le Roy, 711 Bangs Ave., Asbury Park, N. J., until 11 a. m., Feb. 23, for repaving, etc., the deck of the Deal Lake Bridge, situated between Asbury Park and Loch Arbour, with wood block paving. E. E. Throckmorton, 552 Broadway, Long Branch, N. J., is Engr.

NEWARK, N. J.—We are officially advised that the STANDARD BITULITHIC CO., 11 Clinton St., Newark, N. J., has been awarded the contract for 50,000 sq. yds. of asphalt for repairs.

SECAUCUS, N. J.—Bids are asked by the Borough Council of the Borough of Secaucus, at the Borough Hall, Paterson Plankroad, until 8 p. m., March 1, for the grading, curbing and guttering of Fifth, Sixth and Seventh Sts., Hudson Ave., Eighth and Ninth Sts., from Front St. to Center Ave., and of Center Ave., from Fifth St. as far as Center Ave. runs westerly; also of Sixth and Seventh Sts. and Hudson Ave., from Front St. to Power House Road, and of Grace St., from Sixth St. to Hudson Ave. Adrian Post is Boro. Clerk.

GALLITZIN, PA.—Bids will be received by Harry F. Conrad, Boro. Secy., until Feb. 28, for 450,000 paving blocks; also same time for paving with brick about 9,000 sq. yds. D. W. Williams, 47 Altoona Trust Bldg., Altoona, is Engr.

SEWICKLEY, PA.—Bids are asked by M. M. Baker, Acting Boro. Engr., until 5 p. m., Feb. 24, for the macadamising of Walnut St., from Thorn St. to Frederick Ave., in the Borough of Sewickley.

WASHINGTON, D. C.—Bids are asked until noon, March 1, by Capt. H. L. Pettus, Constr. Q. M., Walter Reed General Hospital, Takoma Sub-station, for the construction of macadam roads, concrete walks, etc., at the Walter Reed General Hospital, Washington.

GOLDSBORO, N. C.—We are officially advised that the ATLANTIC BITULITHIC CO. has been awarded the contract for 50,000 sq. yds. of bitulithic pavement in Goldsboro.

MONTGOMERY, ALA.—Bids will be received by Robert Talt, City Treas., until noon, March 7, for paving with asphalt, bitulithic brick, blome granitoid, mineral rubber or wood block, Monroe, Bibb and other streets; also for improving Jeff Davis Ave., from Holt St. to Oak St., by grading, curbing and all necessary storm water sewers, gutters, etc., in connection therewith.

BIRMINGHAM, ALA.—We are officially advised that the SOUTHERN BITULITHIC CO., of Birmingham, Ala., has been awarded the contract for 75,000 sq. yds. of bitulithic pavement.

SANDUSKY, OHIO.—Bids are asked by John Bing, Dir. of Public Service, until noon, Feb. 19, for furnishing the labor and material and constructing stone and cement sidewalks and the relaying of old sidewalks during the year 1910.

YOUNGSTOWN, OHIO.—Bids will be received until Feb. 21 by the County Commissioners for about 4,320 sq. yds. of brick pavement on Poland Ave. and 4,000 lin. ft. of cement curb and gutter. Frank Agnew is Secy.

The bids on street improvements which were opened recently have been tabulated, showing the low bids as follows: Brick paving in Evergreen Ave., S. E. DeGroodt, $9,843; brick paving of Duquesne St., S. H. DeGroodt, $16,400; brick paving of Hilker St., George J. Miller, $2,808; brick paving of Broadway, S. H. DeGroodt, $3,438; brick paving of St. Louis and Oak Hill Aves., S. H. DeGroodt, $11,700; brick paving of Truesdale Ave., James McGlashan, $12,134; brick paving of Shady St., Martin P. Connelly, $16,438.

CINCINNATI, OHIO.—Bids are asked by the Director of Public Service until noon, Feb. 18, for the labor and materials for improvement of Rachel St., from Colerain Ave. to Cormany Ave., by grading, setting straight limestone curbs and granite circular curbs, adjusting the necessary drains and catch basins, and paving the roadway with brick.

Bids will be received until Feb. 21 by the Director of Public Service, for furnishing material, grading, curbing and paving the roadway with granite blocks on a portion of Glenway Ave., grading, curbing and paving the gutters with granite block and the roadway with bowlders on a portion of Shea Pl.; grading, curbing and paving with wood block a portion of Storrs St.

Bids are asked by the Board of County Commissioners until noon, March 4, for improving the Nelson Road, from the Iron Bridge to Remington, Symmes Township. Specification No. 983.

ELGIN, ILL.—During 1910 it is proposed to pave Spring St. with brick at a cost of $61,000, Walnut Ave., at a cost of $46,000 and South State St. at a cost of $22,000.

PEKIN, ILL.—We are officially advised that bids were received on Feb. 3 by the Board of Local Improvements for the construction of the improvement of parts of Capitol, Elizabeth, St. Mary and Sabella Sts. Also bids were received for the improvement of Susannah, Broadway, Fifth and Sixth Sts. It is probable that the contract will be let to the SPRINGFIELD CEMENT & CONSTRUCTION CO., of Springfield, Ill. R. P. Van Deusen is City Engr.; Owen Brown is City Clerk.

APPLETON, WIS.—Bids will be received by C. H. Vinal, City Engr., until Feb. 19 for paving to cost about $150,000. E. L. Williams is City Clk.

MANITOWOC, WIS.—Bids will be received soon for paving portions of Washington, Main, Jay, Quay, Commercial and Ninth Sts., at a cost of $65,000.

MASON CITY, IOWA.—Bids will be received by J. H. McCune, City Clk., about March 1, for 30,000 sq. yds. cement and 10,000 sq. yds. brick paving; also 10,000 ft. of curbing. F. P. Wilson is City Engr.

ST. PAUL, MINN.—The PORTLAND STONE CO., of St. Paul, has secured the contract for constructing sidewalks in St. Paul during 1910. About 400,000 ft. of walks, 1,500 cu. yds. of masonry, etc., are required.

CANEY, KAN.—Bids will be received until March 14 by R. V. Dodson, City Clerk, for grading, curbing and paving with brick, portions of Main, Ninth, Spring, Third Ave. and the alleys running east and west in Blocks 10 and 11; in all about 13,950 sq. yds.

WICHITA, KAN.—Bids will be received until Feb. 21 by W. Sence, City Clerk, for paving with brick block portions of West Douglas, Washington and Roosevelt Aves., in all about 75,000 sq. yds. on a 6-in. Portland cement concrete base, and 18,000 cu. yds. of earth excavation.

CHERRYVALE, KAN.—We are officially advised that bids were received on Feb. 7 by E. E. Bellamy, City Clk., for about one-half mile concrete curb and 4,500 yds. of brick pavement. The contract has been let to JOHN O'LEARY, of Cherryvale, at $26,000. S. L. Hibbard is City Engr.

OMAHA, NEB.—The City Council recently awarded contracts for street improvements. DAN HANNON secured the contract for B, C, J, 22d, 20th and A Sts. The material used is brick paving block. JENSEN & LEFLER secured the award for 21st St., from N St. to Railroad Ave. and for 22d St., from M to N Sts. The material to be used is brick block.

LINCOLN, NEB.—Bids are asked until 1 p. m., Feb. 26, for the construction of paving in Paving District No. 70, being J St., from 16th to 17th Sts., in the City of Lincoln. Roscoe C. Ozman is City Clerk; William Grant is City Engr.

GRAND FORKS, N. DAK.—Bids will be received about March 7 for paving, to cost about $300,000. Ray E. Wickham, of Grand Forks, is Engr.; W. H. Alexander is City Audr.

DALLAS, TEX.—The TEXAS BITULITHIC CO., of Dallas, Tex., has been awarded the contract for 23,085 sq. yds. of bitulithic pavement on Cedar Springs St.

FORT CROCKETT (Galveston post-office), TEX.—See item under Water Supply—Irrigation.

ADA, OKLA.—The SHELBY DOWNARD CO., of Ardmore, Okla, has been awarded a contract to pave Main, Broadway and Townsend Sts., using a 5-in. concrete base and 2-in. rock asphalt. The contract price is $1.80 a sq. yd. and the total cost of the work will be about $83,200.

OKLAHOMA CITY, OKLA.—Bids are asked until 5 p. m., March 7, by W. C. Burke, City Engr., for asphalt paving in this city. We are advised that the total amount of the yardage is 262,215 sq. yds., and the total amount of the contract aggregating nearly $860,000, which in length amounts to 15.78 miles. This does not include a double amount for boulevard streets which have a double driveway. A sheet of estimates is on file at the office of Engineering News, New York.

SEATTLE, WASH.—R. H. Thomson, City Engr., has reported the estimated cost of the following street improvements: Alleys, Blocks 32-33-34 Pontius addition, grading, $7,400; Westlake Ave., North, et al, grading $313,000; Eleventh Ave., West, et al, grading, $33,750; Alki Ave., et al, grading and filling, $115,000; First Ave., South, et al, sewers, $18,000; Trenton St. et al, water mains, $9,100.

The Board of Control has awarded the following contracts for street improvements: 17th Ave., Northeast, et al, grading, to HARTVIG & ESPELAND, $17,025; Taylor Ave. et al, planking, N. D. JOHNSON, $1,059; Broadway and North Broadway, cluster light, C. F. McDonald, $14,730.

PORTLAND, ORE.—The WARREN CONSTRUCTION CO., of Portland, Ore., has secured the contract for 3,950 sq. yds. of bitulithic pavement on First St.

SALT LAKE CITY, UTAH.—Bids are asked by the Utah Light & Ry. Co. until Feb. 21 for paving this company's right-of-way, and track on such streets as may be paved by the city in 1910 and 1911. Joseph S. Wells is Gen. Mgr.

TORONTO, ONT.—At a cost of $52,619, C. H. Rust, City Engr., has recommended the construction of asphalt block pavement in College St., from Manning Ave. to the west side of Dovercourt Road.

WINNIPEG, MAN.—Bids will be received until 11 a. m., Feb. 25, by the Chairman of the Board of Control for 2,500 to 3,500 tons asphalt for street paving. M. Peterson is Secy. Bd. Control.

VANCOUVER, B. C.—At a meeting of property owners the plans for the widening of Bridge St. were approved and a committee appointed to look after the matter. Estimated cost, from $80,000 to $100,000.

The Board of Public Works has decided to call for bids for laying ten miles, more or less, of cement walk. It is possible the work may be divided among several contractors.

RUSSIA.—An American consul in Russia reports that a local party desires to lease to acceptable persons an asphalt mountain on the shore of the Black Sea. Vessels may be loaded by a short aerial tram from montain to shore. The deposit, it is stated, runs 10% bitumen. For address apply to Bureau of Manufacturers, Dept. Commerce and Labor, Washington, D. C.; refer to File No. 4517.

MANUFACTURING PLANTS.

RUTLAND, VT.—Additions will be made to the repair shops of the Rutland R. R. Co. at a cost, with equipment, of $60,000. The plans call for a new boiler shop, 140 × 80 ft., to be built of either steel and cement or steel and brick at a cost of $40,000 and $20,000 will be laid out for machinery. The officials have been authorized to spend $11,000 for tools for the present machine and blacksmith shops so that over $100,000 will be expended by the Rutland R. R. Co. in bettering its equipment during 1910. The shops will be completed by fall. The object of the improvement in the shops is to give the road equipment to handle all repairs of the system in this city, it being necessary at present to have a lot of work done elsewhere. J. C. Irwin is Ch. Engr., Rutland.

LOWELL, MASS.—The Bigelow Carpet Co. will erect two temporary buildings in its yards for the storage of machinery, which will remain until the new buildings now in course of construction are ready. One is to be a picker house, 34 × 107 ft., one story. The other a turbine house, 37½ × 17½ ft.

CLINTON, MASS.—The Lancaster Mills will erect a mill and also houses to provide 20 tenements for the additional number of hands which will be necessary to operate the new mill. The structure will be 150 × 450 ft., four stories high, and will give employment to 500 additional hands. Some of the present tenement houses will be torn down.

SPRINGFIELD, MASS.—The plans for the erection of the building for the Grip Coupling Mfg. Co. have just been completed by Arthur L. Webb, of Springfield, and the drawings and specifications for the building are now being prepared. The structure will be of the steel frame type, with heavy glass walls with wire cemented into the glass. The company will manufacture coupling device, which does away with the cutting of threads on pipes and connections such as are used at the present time. Associated with Mr. Webb in the Grip Coupling Co. are the following: Henry K. Hyde, F. D. Gilmore, E. H. Gilbert, Frank M. Sibley, Andrew Bryson, of Ware, and Timothy Paige, of Hardwick. The company will begin operations immediately, and will employ about 40 machinists.

The contract for constructing the 5-story addition to the plant of the recently reorganized Hendee Mfg. Co. has been let to WILLIAM D. McKENZIE and work will be begun March 1.

THORNTON, R. I.—A contract has been awarded by the Victoria Mills to A. C. J. LEONARD & CO., of Providence, R. I., for a boiler-house. The plans, which have been prepared by Thomas Evans, 75 Westminster St., Providence, R. I., call for a 1-story frame building with gravel roof. The interior of the structure is to be of expanded metal and Portland cement.

WILLIMANTIC, CONN.—The American Thread Co. will erect an addition for a bleachery to its Willimantic Mills in the spring near the No. 6 mill. The new building, which will be three stories high, 76 × 223 ft., will have rooms for the offices of the superintendent of the finishing department and the cost department, which will be moved from the No. 1 mill. The latter mill will be given over to the shipping department and the storage of finished stock. The company will erect 25 houses on its property near Windham Road.

HARTFORD, CONN.—The Merrow Machine Co. is to construct a 3-story factory addition, 47½ × 47½ ft.

HARTFORD, CONN.—The Underwood Typewriter Co., New York, is considering plans for the construction of a factory building to be erected on Capitol Ave. C. D. Rice is Gen. Mgr.

NEW YORK, N. Y.—The Interborough Rapid Transit Co. has filed plans for car barns to be erected at the southeast corner of 242d St. and Spuyten Duyvil Road. The building is to be from one to three stories high on a plot 89 ft. front and extending back 530 ft. It will cost $100,000. George H. Pegram is Arch., 507 Fifth Ave.

LOCKPORT, N. Y.—The United Indurated Fiber Co., which was recently acquired by the H. W. Johns-Manville Co., will let contracts soon for construction of three 2-story reinforced-concrete factory buildings, each 100 × 200 ft., for the manufacture of asbestos articles. The cost of the improvements, including the machinery to be installed, will, it is stated, approximate $900,000.

NORTH TONAWANDA, N. Y.—The Automatic Coin Wrapping Co., recently incorporated with a capitalization of $1,200,000, is having plans prepared for a plant for the manufacture of machines to wrap coins automatically.

BUFFALO, N. Y.—Robert J. Reidpath, 30 Builders Exchange, Arch., is preparing plans for a 4-story addition to be made to the plant of the Sikes Chair Co., Clinton and Spring Sts. The addition will be of brick and mill construction.

JERSEY CITY, N. J.—The factor is to be erected on Florence and Warwick Sts. for the United Wireless Co., 42 Broadway, New York. It will be 40 × 200 ft. and will cost $20,000. The power will be purchased from the Public Service Co.

The New York Baking Powder Co., 102 Murray St., New York, N. Y., intends to erect on West Side Ave., a 3-story reinforced-concrete factory, 100 × 120 ft., estimated to cost $75,000. F. H. Koenigsberger, 1 Madison Ave., New York, Arch., will receive bids.

PHILADELPHIA, PA.—Plans are being prepared by John G. Brown, Arch., for a 6-story and basement fireproof building, to be built at 919 and 921 Arch St. for Asam Bros. It will be used for light manufacturing purposes, and will cost about $55,000. The building will have a depth of 194 ft. and a frontage of 30 ft.

HARRISBURG, PA.—A factory is to be built by the Wellknit Hosiery Co., of which W. G. Starry is proprietor, on a portion of land which Mr. Starry recently purchased. It will be three or four stories in height.

SOUTH CONNELLSVILLE, PA.—A building 162 ft. long is to be erected at the Humbert plant of the American Sheet & Tin Plate Co. at South Connellsville. The building is to cover the bar supplies. It will not mean the additional employment of men at the mill, but will give protection to the men handling the raw material at the plant, who have heretofore worked in the open. The building will be of light structural steel and the plans are in the hands of the American Bridge Co. and will be a continuation of the present main hot mill.

BALTIMORE, MD.—The Pennsylvania R. R. Co. plans to expend between $250,000 and $300,000 in Baltimore by moving its Mount Vernon shops to Bayview Junction. The Mount Vernon shops are in the northern section of Baltimore. The work of removal will require about one year to complete, and will be ready when the new improvements at Union Station are open to the public. The car shops and the machine shops will be taken to the new location, so as to be in proximity to the engines and ready to give relief when these get out of order. The planing mill and blacksmith shop will be maintained at Mount Vernon. An electric light plant will be provided, which will be used to furnish power for illumination, and will serve the purpose of running much of the machinery, particularly in operating the many turntables which will be in constant use. This plant will furnish light for all the company's terminals in and around Canton, including the grain elevators and service along the tracks. The roundhouses to be built will accommodate about 75 engines. T. N. Ely is Ch. of Motive Power, Philadelphia, Pa.

The Falconer Co., 3 North Gay St., manufacturers of banking stationery and supplies, which recently purchased the lot on the northwest corner of Gay and Water Sts., is having plans drawn for a 5-story concrete building. The structure will be fireproof and the floors will be of concrete. Two elevators will be installed, one for passengers and the other for freight. On the first floor will be the general offices and the retail department. The second floor will be used as a stockroom. The book binding department will be on the third floor. The printing, composing and lithographing departments will occupy the fourth and fifth floors. The firm is considering the installation of a private electric plant to supply the building with light and power. A steam heating plant will be installed. The contract will be let at once.

ROCKINGHAM, N. C.—The Ledbetter Mfg. Co., Ledbetter, 15 miles from Rockingham, N. C., is planning the erection of a weave room in which to install looms to weave the output of the company's present equipment of 2,800 ring spindles. It will enlarge its power dam in order to provide the additional power that will be required.

The management of the Hannah Pickett Mills, Rockingham, N. C., will build an addition to the present structure and provide space for the installation of enough looms to weave the product of the company's 10,080 ring spindles. This addition will be 250 × 100 ft., and construction will begin soon. The company is capitalized at $200,000. Robert L. Steele is Pres.

BURLINGTON, N. C.—The Keystone Finishing Mill, Burlington, N. C., has been incorporated by J. H. Tate, 324 North Main St., High Point, N. C., John M. Cook and J. W. Murray, of Burlington. It has a capital stock of $125,000 and $25,000 have been paid in. The plant will dye, finish and sell hosiery knitted in the Burlington district mills. It will have a daily dyeing and finishing capacity of 2,000 pairs of hosiery, besides making 3,000 paper boxes in which to pack the hosiery and the wood cases in which these boxes of hosiery will be shipped. The building will be one story, 60 × 120 ft.

WINSTON-SALEM, N. C.—The P. H. Hanes Knitting Co., of Winston-Salem, N. C., will build a mill to spin the yarns for its present knitting plant. It contemplates an investment of $250,000 and the mill will probably be equipped with 10,000 spindles

and accompanying apparatus. A site has been chosen on the outskirts of the city, and details of buildings, machinery, etc., will be given immediate attention.

We are officially advised that the stockholders of the Inverness Mills Co., incorporated with a capital stock of $150,000, will meet this week to effect formal organization. This company will build a plant at Winston-Salem, N. C., and its equipment will probably be 10,000 spindles and 300 looms for manufacturing gray goods. The $150,000 has been subscribed and the authorized capitalization is $200,000, which is expected to be paid in soon. A site of 12 acres has been obtained and the completed plant will employ about 250 persons. The stockholders include Lawrence McRae, who is the promoter of the enterprise; H. G. Chatham, largely interested in woolen manufacture at Winston-Salem, N. C.; James A. Gray, E. S. Gray, R. J. Reynolds, M. D. Stockton, A. F. Sams, A. H. Zeller, H. R. Starbuck, W. E. O'Hanlon, C. E. Webb, J. L. Patterson, Henry W. Masten, R. T. Butner, E. D. Vaughan, H. D. Hodgin, W. T. Brown and others of Winston-Salem; James B. Duke and W. W. Fuller, of the American Tobacco Co., New York, and other New York capitalists. Mr. McRae will be the executive of the company and will have entire charge of plans, construction, equipment, etc. The building will be two stories high, 75 × 300 ft., and will cost $25,000. Plans will be ready by Feb. 25 and bids will be received about March 1. The machinery has been purchased.

FLAT ROCK, N. C.—The Skyland Hosiery Co., of Flat Rock, N. C., has decided on plans for reconstructing its finishing plant, which was burned several months ago. It will expend $15,000 for the new structure, this having been decided at a stockholders' meeting last week. The building will be of fireproof construction and its equipment will include the latest improved machinery for finishing knit goods.

GREENWOOD, MISS.—The boiler house of the A. H. Barrett & Sons Lumber plant, which was recently destroyed by fire, will be rebuilt.

NEW ORLEANS, LA.—Jacobs Candy Co. has plans by Emile Weil, Arch., 616 Hibernia Bldg., New Orleans, for the erection of a 2-story brick candy factory, 55 x 150 ft.

COLUMBUS, OHIO.—It is said that the Norfolk & Western Ry. Co. will erect large repair shops in Columbus, upon land purchased some time ago near the County Infirmary. Recently the company purchased the McCloud farm in the same location. W. H. Lewis is Supt. M. P., Roanoke, Va.

MIDDLETON, OHIO.—Orders have been placed for the building and equipment of a steel plant at Middletown, which will cost $3,000,000. The orders came from the American Rolling Mill Co., which some months ago floated a bond issue of $3,000,000 to make extensions and improvements to the Middletown plant. The AMERICAN BRIDGE CO., 30 Church St., New York, has the order for all of the structural steel work for the mill buildings, and for the erection of the same when the Ambridge shops fabricate the material. The order for an entire electrical equipment for the new plant has been given to the WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburg, Pa.

The UNITED ENGINEERING & FOUNDRY CO., of Pittsburg, has been awarded the contract for the building of a blooming mill equipment complete, and the MESTA MACHINE CO. has the contract for the construction of a blooming mill engine of the Corliss type, which is to be completed as soon as possible.

TOLEDO, OHIO.—The Directors of the Continental Sugar Co., with headquarters at Cleveland, Ohio, have just placed $1,000,000 as an available fund for erecting a sugar refining plant in Toledo.

WARSAW, IND.—Bids will be received by the Winona Traction Co. for the erection and installation of complete tools for a repair shop.

INDIANAPOLIS, IND.—The Cleveland, Cincinnati, Chicago & St. Louis Ry. Co. is to expend $1,000,000 for car shops at Beech Grove, near Indianapolis, which will be built in accordance with plans previously laid down under which the locomotive shops had already been located there. The additions to the plant will provide the company with a central car repairing shop. Cost of the new car shops will bring the company's total investment at Beech Grove to about $2,000,000, and will give employment to about 1,500 additional men. J. F. Deems, New York, is Gen. Supt. of M. P.

TERRE HAUTE, IND.—W. P. Radley, Traffic Mgr. for the Southern Indiana Ry. Co., is asking for bids for the construction of an addition to the round-house here.

DETROIT, MICH.—Contracts have been let as follows by the Clayton & Lambert Mfg. Co., Trombley and Beaubien Sts., Detroit, for a 2-story addition to the present factory building: Heating, ventilation and plumbing to HARRIGAN & REID, 70-72 State St.; structural iron work to the RUSSELL WHEEL & FOUNDRY CO. Malcomson & Higginbothom, Moffet Block, Detroit, are Archs.

SUPERIOR, WIS.—A $100,000 concrete mixing plant is to be built for the U. S. Steel Corporation. The HILE-PATTERSON CO. has the contract. Concrete construction will be used in the steel plant and the company will construct its own outfit for turning out the material.

LAWTON, OKLA.—The E. L. Shuford Mfg. Co., Lawton, Okla., has plans and specification for the erection of its plant. The plans call for the erection of a main building, 416 × 79 ft., two stories with basement; an engine room, 53 × 40 ft., and a boiler room, 42 × 40 ft. Other plans will soon be supplied for the erection of warehouses, office building, cloth rooms, operatives dwellings, etc. Construction has begun, the contract having been awarded to the HOLLEM & TRUITT LUMBER CO., of Lawton, as noted on Jan. 6. The power plant will be designed for several times the initial equipment of textile machinery, which will be 10,000 spindles, 340 looms, etc., for manufacturing cotton cloth. This Lawton company is the project of E. L. Shuford, of Hickory, N. C., and is capitalized at $500,000.

OKLAHOMA CITY, OKLA.—The Schwarzschild & Sulzberger Packing Co., of Chicago and Kansas City, has signed a contract with the Oklahoma City Chamber of Commerce to build a packing plant in this city to cost $3,000,000. The Chamber of Commerce agrees within 30 days to pay over to the company a bonus of $300,000. The company has an option on a tract of land near the new plant of Morris & Co., for the site of its plant and the necessary stock pens.

SEATTLE, WASH.—The Vermont Marble Co. will begin the construction of a marble finishing plant in Seattle, Wash. The company has bought the holdings of the Western Marble Co., of Seattle and Tacoma, which operated a finishing plant in Tacoma in conjunction with quarries in Alaska. The new plant will employ about 200 men and will receive rough marble from the Alaska quarries and prepare it for commercial use.

OAKLAND, CAL.—William H. Hibbard, Pres. California Silk Mills Co., of Oakland, states his company has an option on a site for erecting silk mills and cottages for employees. The cost of the enterprise will be $1,000,000.

OXNARD, CAL.—CARL LEON, of Los Angeles, has been awarded a contract by the American Beet Sugar Co., Oxnard, Cal., to erect a reinforced-concrete and brick warehouse, 200 x 60 ft., with concrete roof.

MISCELLANEOUS CONTRACTS.

(denotes that this work is advertised in Engineering News.)

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

CRANES.—Nashville, Tenn.—Bids will be received until Feb. 25 by the Nashville Bridge Co., Nashville, for electric traveling cranes 75 ft. span, 5 and 10-ton capacity.

TELEPHONE SYSTEMS.—Melville, Sask.—SIMPSON & CRAIG, Virden, Man., have been awarded contracts for installing telephone systems in the towns of Melville and Hanley.

DITCH.—Hartford City, Ind.—The contract for constructing Hocroft Ditch has been awarded to G. A. MASON, of Montpelier, Ind. Cost, about $7,000. Bids were received Feb. 3.

CONCRETE BLOCKS.—Grays Harbor, Wash.—The GRAYS HARBOR CONCRETE CO. has been awarded contract to furnish 4,000 concrete blocks to the Northwestern Lumber Co.

WHARF.—St. John, N. B.—The Harbor Commissioners have decided to call for bids for a wharf for the Eastern Steamship Co., 300 ft. long × 30 ft. wide, the cost not to exceed $40,000.

*FIRE ALARM SYSTEM.—Mamaroneck, N. Y.—Bids are asked by Charles W. Buckter, Village Clerk, until 8 p. m., Feb. 23, for furnishing and installing an automatic fire alarm system.

SANDSUCKER.—Manitowoc, Wis.—Contract for a sandsucker has been awarded by the Great Lakes Land Co., of Chicago, Ill., to the MANITOWOC DRY DOCKS CO. Work will be started at once.

WHARF.—Cummings Cove, N. B.—Contract for the construction of a wharf at Cummings Cove, Deer Island, Charlotte County, has been awarded to THOMAS P. CHARLESON, of Ottawa, at $16,890.

FLAG POLES.—New York, N. Y.—Bids are asked until 3 p. m., March 3, by the Park Board, for furnishing, delivering and setting up 18 flag poles in the parks of the Boroughs of Brooklyn and Queens.

CEMENT. — Menasha, Wis. — The City Council has awarded the contract for furnishing 5,000 bbls. of cement to be used in paving of Tayco, Main and Racine Sts., to H. H. PLUMMER at $1.35 per bbl.

REPAIRING LAUNCH.—Jackson Barracks (New Orleans post-office), La.—Bids will be received by First Lieut. A. L. Loustalot, Q. M., U. S. A., until 10 a. m., March 12, for repairing the launch Mansfield.

RETAINING WALL.—Bristol, Conn.—Bids are asked by James Knox Taylor, Supervy. Arch., Treasury Dept., Washington, D. C., until 3 p. m., March 8, for the retaining wall, etc., at the U. S. post-office Bristol.

*CEMENT, ETC.—Washington, D. C.—Bids are asked by Maj. Jay J. Morrow, Corps Engrs., U. S. A., until noon, March 14, for furnishing and delivering building stone and Portland cement in Potomac Park.

CANAL EXTENSION.—Raleigh, N. C.—Contract has been let to LAWRENCE FRETT for the extension of Toisnot Canal, a distance of four miles. Cost, $9,800. When completed the canal will be twelve miles long.

*DREDGING.—Savannah, Ga.—Bids are asked by Col. D. C. Kingman, Corps Engrs., U. S. A., until noon, March 9, for dredging in Club and Plantation Creeks, Ga. Specifications are on file at office of Engineering News, New York.

LEVEE.—Princeton, Ind.—The Commissioners of Gibson and Pike Counties are preparing to let contracts for the construction of 80 miles of levee along the Paloka and Wabash Rivers. Estimated cost, $4,000 a mile. The levee will reclaim about 250,000 acres of land.

DITCHES.—Valparaiso, Ind.—C. J. JONES, of Valparaiso, has been awarded contract for constructing the Jones ditch, to include a dredge ditch 6¼ miles long and comprising about 92,543 yds. excavation at 4.988 cts. per yd., or $4,570. Bids were opened on Feb. 12. G. F. Stinchfield is County Audr.

DITCH.—Columbus, Ohio.—Bids will be received until March 7 by the County Commissioners for deepening and straightening Mason Run Ditch in Truro and Mifflin Townships, Secs. 1, 2, 3 and 4, a total distance of 19,900 ft., containing 15,765 cu. yds. excavation. Hugh K. Lindsey, County Surveyor.

LIGHT VESSEL.—St. Joseph, Mich.—Bids will be received by the Lighthouse Board, Washington, until 2 p. m., Feb. 24, for furnishing material and labor necessary for the construction, equipment and delivery of the second-class single screw steel steam light vessel No. 95, to the light house inspector at the Light House Depot, St. Joseph, Mich.

LEVEE.—Des Moines, Iowa.—Bids were received on Feb. 1 for constructing levee in District No. 9 and the contract has been awarded to O. P. HERRICK, Observatory Bldg., Des Moines, at 20.7 cts. per cu. yd. About 89,505 cu. yds. will be excavated. Cost, $13,675. The contract for a tile drain in District No. 10, Clay Township, has been awarded to W. V. DAVIS, of Altoona, Iowa, for $2,950.

MOORING STONES.—Portland, Me.—Bids will be received at the office of the Lighthouse Inspector, Portland, until noon, March 16, for furnishing mooring stones for use in the first light-house district for the fiscal year ending June 30, 1911, in accordance with specifications, copies of which with blank proposals and other information, may be had upon application to the Light-house Inspector, Portland.

DREDGING.—South March, Ont.—Bids are asked by Thomas Richardson, Clerk of Township of March, until noon, March 1, for dredging work on the Carp River within the townships of March and Huntley, in the County of Carleton, to be done in accordance with the plans, specifications and estimates of J. H. Moore, C. E., filed with the Township of March on the Carp River Drainage Improvement Scheme.

DITCH.—Council Bluffs, Iowa.—Bids were opened Jan. 25 by the Board of County Supervisors for constructing a drainage ditch along the course of Keg Creek, in Hadin and Keg Creek Townships, about ten miles in length, to be known as Keg Creek Drainage Ditch, and the contract has been awarded to FORRESTAL & DOWNEY, of Milwaukee, Wis., at 6.37 cts. per cu. yd. R. V. Innes is County Audr.

DITCHES.—Tampico, Ill.—F. Barenthin, Comr. Drainage Dist. No. 2, R. F. D. No. 1, writes that bids were opened Jan. 29 for extending and improving main outlet ditch and two branch or lateral ditches in Drainage Dist. No. 2, Town of Fairfield, County of Bureau, requiring the removal of 117,042 cu. yds. material, and the contract has been awarded to G. A. McWILLIAMS, of Walnut. F. W. Sears, Engr., Prophetstown.

DITCHES.—Glendive, Mont.—The Secretary of the Interior has granted an extension of six months' time to HENRY DORE, of Ridgelawn, Mont., in which to complete his contract for the construction of ditches in connection with the Lower Yellowstone project, Mont.-N. Dak. The work of the contractor was interfered with by circumstances entirely beyond his control. The action of the Secretary in thus extending the time limit of the contract will set the date of completion July 1, 1910.

RIVER IMPROVEMENT.—Hackensack, N. J.—The improvement of the Hackensack River, so as to provide a depth of about 17 ft. at high water at Hackensack, at an estimated cost of $171,018 and annual maintenance of $6,000, was recommended to Congress on Feb. 3 by the War Department. It will provide a channel 12 ft. deep and 200 ft. wide from Newark Bay to Little Ferry bridge, and of the same depth, with a width of 150 ft., from the latter point to the New York, Susquehanna & Western R. R. bridge.

SEGMENTS.—Tompkinsville, N. Y.—The following bids were opened on Jan. 25 by the Engineer of the Third Lighthouse District, Tompkinsville, for furnishing and delivering (custom house duties not included) 200 segments of 90 degrees each for lens apparatus and 72 segments of 28 catadioptric prisms of 120 degrees each for light vessels: BARBIER BENARD & TURENNE, Paris, France, $5,250 (awarded contract); Chance Bros. & Co., Smethwick, England, $5,725; Est. Henry-Lepaute, Paris, $6,006; Harle & Co., Paris, $6,448.

*REMOVAL OF WRECKS.—Boston, Mass.—Bids are asked by Lt.-Col. Edward Burr, Corps Engrs., U. S. A., Boston, until noon, March 14, for removal of the following obstructions to navigation: Wrecks of canal boats "Folsom," "A. Gravel," "Thompson," "Thos. F. Quinn," "R. A. Bullis," "Damon," "Alec Black," "Saunders," and hulk of one canal boat, name unknown, in the Narrows of Lake Champlain, N. Y. and Vt.; wrecks of canal boats "Little Frank," "Jersey Lily," and hulks of four other canal boats, names unknown, in Port Henry Harbor, N. Y., unless otherwise removed before March 12.

DOCKS, ETC.—Toledo, Ohio.—Contracts for improved dock facilities in Toledo that will cost $2,000,000 have been let by the Cincinnati, Hamilton & Dayton Ry. Co., Cincinnati. The WELLMAN-SEAVER-MORGAN CO., 7000 Central Ave., S. E., Cleveland, will erect the machinery, and the GREAT LAKES DREDGING & DOCK CO., of Chicago, will do the dredging and erect the dock. New hoisting and loading machinery will be installed at a cost of $1,000,000. The C. H. & D. has asked permission of the War Department to extend the harbor line in several places along the Maumee River, where the new docks will be erected. F. H. Alfred, Cincinnati, is Ch. Engr.

COAL-HANDLING PLANT. — North Chicago, Ill.—Bids were received as follows on Feb. 15 by the Bureau of Navigation, Navy Department, Washington, D. C., for the construction of one ash-handling and one coal-handling plant at the Naval Training Station, North Chicago: D'Olier Engineering Co., 121 South Eleventh St., Philadelphia, entire work, $14,640; on bidders' specifications, $14,340. Penn Bridge Co., Beaver Falls, Pa., coal-crushing plant alone, $3,340. Darley Engineering Co., 149 Broadway, New York, vacuum ash-handling plant instead of hydraulic ash lift, $8,500. Jeffrey Mfg. Co., Columbus, Ohio, coal-handling machinery only, $8,100. Otis Elevator Co., 7 Battery Place, New York, installing a hydraulic ash-lift on foundation furnished by the Government, $2,280.

BOATS.—Washington, D. C.—Bids were received on Feb. 8 by the Superintendent of the Life-Saving Station, Washington, D. C., for the construction of ten 36-ft. self-righting and self-bailing lifeboats, with outfit of oarline engines, to be delivered at New York City, as follows: Eastern Shipyard Co., Greenport, N. Y., $7,453 each; Gas Engine & Power Co. and Chas. L. Seabury & Co. (consolidated), Morris Heights, N. Y., $7,327 for all; Racine Boat Mfg. Co., Muskegon, Mich., $7,393; Welin, Davit & Lane and DeGroot Co. (consolidated), 17 Battery Place, New York City, $7,570 each; Matthews Boat Co., Port Clinton, Ohio, $7,911 each; Hollo Motor Co., West Mystic, Conn., $74,9 for all; Luder's Marine Construction Co., Port Chester, N. Y., $8,254 each; Electric Launch Co., Bayonne, N. J., $7,170 each.

DRAINAGE DITCH.—Davenport, Iowa.—The Scott County Board of Supervisors on Feb. 7 received bids for the work on the Butler Township drainage ditch. Some of the bids were qualified. The specifications require that the work be started at the river. If allowed to begin at the other end some of the contractors make their bids lower. The work is in two sections, the bids being the same for both sections. The following are the bids: Frank H. Steven, Geneseo, 14 cts. per cu. yd.; Chapman Bros., Muscatine, 13 cts. per cu. yd.; L. H. HENNING (awarded contract), Butler Township, 13 cents. per cu. yd. If paid in cash and 14 cts. If paid in certificates; Cook Construction Co., Des Moines, 16 cts.; James McKillip, Northwood, Iowa, 16.2 cts. according to specifications and 12.2 if allowed to begin at the other end; R. J. Phelps, Carbon Cliff, 13.7 cts. according to specifications, and 12.7 cts. if allowed to start at the other end; Independent Construction Co., Davenport, 16.5 cts. in cash or 16.7 cts. in certificates.

RIFLE RANGE.—Blauvelt, N. Y.—The bids received by the State Armory Commission on Feb. 10, for the work of constructing a rifle range at Blauvelt, N. Y., including excavating, grading and telephones, were (a) For telephones only; (b) for entire work: Westchester Engineering Co., New York, (b) $115,259; The Snare & Triest Co., New York, (a) $14,800, (b) $153,400; Frank Besch, Troy, N. Y., (b) $143,000; Merrill-Ruckraber Co., New York, (a) $7,800, (b) $155,000; North Eastern Construction Co., New York, (a) $14,500, (b) $116,588; Charles Meads & Co., New York, (b) $116,000; W. M. Sheehan & Co., New York, (a) $10,810; Ross-Busch Co., New York, (a) $8,750; W. H. Fissell, New York, (b) $213,000; N. D. Peters Co., Utica, N. Y., (a) $13,050, (b) $123,143; Morris Kantrowitz, Albany, N. Y., (a) $19,500, (b) $198,000; Sykes & Co., Broadway, New York, (b) $116,000; Theodore Hailes, Albany, N. Y., (a) $11,383; Martin Murray, Troy, N. Y., (b) $111,121; Frost & Sheldon, Albany, N. Y., (a) $9,870.

U. S. POSSESSIONS.

LUMBER.—Panama.—The General Purchasing Officer, Isthmian Canal Commission, Washington, has awarded contract for the purchase of 600,000 ft. B. M. of long leaf yellow pine to the ROBINSON LUMBER VENEER & BOX CO., New Orleans, at $14,054; delivery 90 days.

PILING.—Panama.—The General Purchasing Officer of the Isthmian Canal Commission, Washington, has awarded contract for furnishing 7,450 untreated long leaf yellow pine piles to D. L. GILLESPIE & CO., 541 Wood St., Pittsburg, at a total of $38,650, or 14.09 cts. per lin. ft. These piles are to be delivered at Colon, Isthmus of Panama, in two cargoes in 75 and 140 days respectively. A list of itemized prices is given in this issue under Contract Prces.

*IRRIGATION WORK.—Porto Rico.—Bids were received at the office of Porto Rico Irrigation Service, Dept. of the Interior, Guayama, P. R., on Jan. 17, for construction of an earth and gravel dam, to be known as the Patillas Dam and appurtenant structures near Patillas, P. R. Estimated cost, $500,000. (Advertised on Oct. 21, 1909.) Contract was awarded to DEL VALLE-ZENO BROS., San Juan, at $462,150. Itemized bids are given under Contract Prices in this issue.

*IRRIGATION TUNNELS.—Porto Rico.—Bids were received at the office of Porto Rico Irrigation Service, Dept. of the Interior, Guayama, P. R., on Jan. 17, for construction of the Carite Tunnel near Guayama, and the Toro Negro Tunnel near Villalba. The aggregate length of these tunnels being about 6,000 lin. ft. and the estimated cost being about $100,000. B. M. Hall, Ch. Engr. Irrigation Service. (Advertised on Dec. 30.) Contract was awarded to T. L. HUSTON, of Havana, Cuba, at $43,650 for the Carite tunnel, and $72,635 for the Toro Negro tunnel. Itemized bid is given under Contract Prices in this issue.

SUPPLIES.—Panama.—Bids were received as follows on Feb. 14, by the General Purchasing Officer of the Isthmian Canal Commission for 7,450 untreated piles, from 35 to 75 ft. in length: American Tie & Timber Co., 11 Broadway, New York, $77,838, $84,935; 90 days. A. S. Bacon & Sons, Savannah, Ga., $77,000; 230 days. G. S. Baxter & Co., 35 William St., New York, $73,884, $66,478; 115 days; G. Elias & Bro., Buffalo, $64,685; 180 days. S. E. Naylor & Co., Gulfport, Miss., $62,337; 90 days. Robinson Lumber, Veneer & Box Co., New Orleans, $72,844; 180 days. D. L. Gillespie & Co., Pittsburg, $58,649; 140 days. W. R. Grace & Co., San Francisco, $74,085; 300 days.

*VALVE CHAMBERS, ETC.—Panama.—Bids were received as follows on Feb. 7 by the General Purchasing Officer of the Isthmian Canal Commission, Washington, for furnishing material to form the valve chambers in the main culverts of the canal locks, including structural material, castings, bolts, nuts, washers, etc. Unit prices were asked on (a) 404,800 lbs. of cast steel; (b) 2,747,469 lbs. of cast iron; (c) 394,834 lbs. of structural steel; (d) 47,843 lbs. standard rail; (e) 78,828 lbs. steel bolts and nuts; (f) 338 lbs. bronze bolts; (g) 28,565 lbs. cast-iron washers: Manning, Maxwell & Moore, 85 Liberty St., New York, (a) 10.17 cts., (b) 4 cts., (c) 4.75 cts., (d) 3 cts., (e) 4 cts., (f) 40 cts., (g) 1.75 cts.; total, $175,046; 180-270 days shipment. Rosedale Foundry & Machine Co., Rosedale, Pa., (a) 9.5 cts., (b) 4.85 cts., (c) 7.5 cts., 6.75 cts., (d) 3.25 cts., (e) 4.9 cts., (f) 40 cts., (g) 3.5 cts.; not totalled; 450 days. Ross-Meehan Foundry Co., Chattanooga, Tenn., (a) 8 cts., (b) 7.8 cts., (c) 7 cts., (d) 6 cts., (e) 7.8 cts., (f) 75 cts., (g) 3 cts.; total, $284,121; 200 days. Wheeling Mould & Foundry Co., Wheeling, W. Va., (a) 5.28 cts., (b) 3.86 cts., (c) 5.58 cts., (d) 3.72 cts., (e) 6.10 cts., (f) 79.45 cts., (g) 3.31 cts.; total, $157,257; 217 days.

CONTRACT PRICES.

*IRRIGATION WORK.—Porto Rico.—Bids were received at the office of Porto Rico Irrigation Service, Dept. of the Interior, Guayama, P. R., on Jan. 17, for construction of an earth and gravel dam, to be known as the Patillas Dam and appurtenant structures near Patillas, P. R. Itemized bids were as follows—(A) DEL VALLE-ZENO BROS., San Juan, P. R. (awarded contract); (B) Ellicorn Construction Co., New York; (C) P. J. Carlin Construction Co., 16 East 23d St., New York; (D) T. L. Huston, Havana, Cuba; (E) David Peoples, Betz Bldg., and D. V. Ault, Philadelphia, Pa.:

	(A)	(B)	(C)	(D)	(E)
32 acres grubbing and clearing	$54.00	$100.00	$300.00	$150.00	$100.00
15,000 cu. meters excavation for outlet works, Class 1 (open cut)	.68	.51	1.30	.60	.60
850 cu. meters excavation for outlet works, Class 2 (open cut)	.82	.85	2.00	.80	1.00
3,700 cu. meters excavation for outlet works, Class 3 (open cut)	.95	1.71	3.00	1.30	5.00
7,000 cu. meters tunnel and shaft excavation	9.00	5.00	10.00	5.50	9.00
13,500 cu. meters excavation for cut-off trench, Class 1	.68	.59	1.20	1.10	.60
5,200 cu. meters excavation for cut-off trench, Class 2	2.05	1.21	2.60	2.90	1.00
700 cu. meters excavation for cut-off trench, Class 3	2.74	6.39	5.00	6.30	6.00
29,000 cu. meters excavation for spillway, Class 1	.34	.29	.65	.45	.60
8,400 cu. meters excavation for spillway, Class 2	.47	.85	1.30	.65	1.00
20,000 cu. meters excavation for spillway, Class 3	.75	1.26	2.00	1.30	5.00
31,000 cu. meters hauling and placing in upper dike	.27	.40	.65	.30	.30
3,700 cu. meters excavation for training channel, Class 1	.68	.64	1.00	.75	.60
500 cu. meters excavation for training channel, Class 2	.82	.98	2.00	.95	1.00
100 cu. meters excavation for training channel, Class 3	.95	1.83	3.00	1.40	5.00
20 M. ft. B. M. tunnel timbering	82.00	73.00	60.00	80.00	75.00
17,000 cu. meters backfilling of cut-off trench	.40	.64	.65	.60	.60
628,000 cu. meters dam embankment	.43	.552	.45	.60	.60
2,000 cu. meters gate house embankment	.55	.51	.65	.60	.50
1,900 sq. meters dry rock paving	1.22	1.79	2.40	1.00	1.00
1,725 cu. meters concrete, Class A	8.80	14.40	7.80	9.75	8.00
940 cu. meters concrete, Class B	17.80	17.61	10.40	18.00	20.00
300 cu. meters concrete, Class C	13.70	16.27	7.00	9.75	18.00
5,000 lbs. handling and placing reinforcing steel for steel for concrete	.02	.025	.10	.05	.03
15,400 lbs. handling and setting, anchor bolts, gate guides and stem guides, trash racks, etc.	.02	.0325	.07	.05	.04
Totals of bids	$462,150	$545,011	$569,659	$579,713	$682,536

CONDUIT.—Chicago, Ill.—Bids were received Feb. 2 by the Board of Trustees, Sanitary District, Chicago, for the construction of a conduit in West 39th St. of either brick or concrete, 14 ft. high and 12 ft. wide, approximately 2,340 ft. long. The bidders, all of Chicago, Ill., are as follows: (A) John W. Farley & Co.; (B) National Contracting Co.; (C) American Engineering & Construction Co.; (D) Federal Improvement Co.; (E) Nash Bros.; (F) James J. Lynch:

	(A)	(B)	(C)	(D)	(E)	(F)
1,860 lin. ft. brick conduit	$34.50	$36.37	$38.17	$35.27	$37.72	$38.00
2,330 lin. ft. concrete conduit	27.50	33.00	35.27	34.70	37.90	36.00
470 lin. ft. brick conduit	40.00	42.50	43.00	40.60	43.86	44.00
Intake (lump sum)	10,000.00	6,175.00	6,227.00	10,956.00	8,000.00	12,500.00
Brick wing conduit (lump sum)	682.00	439.00	748.00	525.00	364.00	750.00
Concrete wing conduit (lump sum)	682.00	425.00	748.00	525.00	475.00	650.00
900 lin. ft. piling	1.00	.25	.40	2.50	2.50	2.75
300 cu. yds .additional excavation	1.00	.50	1.50	2.00	1.50	1.50
42,000 lbs. reinforcing steel	.05	.02	.03½	.05	.04	.06
Total, brick	$94,852	$94,612	$98,991	$99,015	$101,837	$107,535
Total, concrete	$78,067	$84,705	$91,434	$97,282	$101,162	$102,475

Deposit required: $5,000.

PILES.—Panama.—The Isthmian Canal Commission opened bids Feb. 14 for piles, etc. These were described in Circular No. 555.

Bids were received for 7,450 piles of long-leaf yellow pine, cypress, or Douglas fir delivered at Colon or Port of Ancon, Panama. Piles must be not less than 14-in. nor more than 20-in. at large end or butt, and not more than 8-in. at small end for piles 55 ft. and under, and not less than 7-in. for piles over 55 ft. long. The bids per lin. ft. of a low bidder were as follows: 35, 40, 45 and 50 ft. long, 14 cts.; 55 ft. long, 15 cts.; 60 ft. long, 15½ cts.; 65 ft. long, 16 cts.; 70 and 75 ft. long, 17 cts.

The lump sum bids were as follows: D. L. GILLISPIE & CO., Pittsburg, $58,649.63 (awarded contract); American Tie & Timber Co., New York, $77,888.75; A. S. Bacon & Sons Savannah, Ga., $77,008.25; W. R. Grace & Co., $74,082.75; L. B. Naylor & Co., Gulfport, Miss., $62,338.68; Robinson Lumber Veneer & Box Co., New Orleans, La., $72,843.75; G. Elias & Bro., Busalo, N. Y., $64,685.

For 50 creosoted piles, 50 ft. long, the lowest bid was $2.05 each. The bids were as follows: A. S. Bason & Sons, Savannah, Ga., $1,030; Gulfport Creosoting Co., Gulfport, Miss., $1,025; Norfolk Creosoting Co., Norfolk, Va., $1,125.

*IRRIGATION TUNNELS.—Porto Rico.—Bids were received at the office of Porto Rico Irrigation Service, Dept. of the Interior, Guayama, P. R., on Jan. 17 for construction of the Carite Tunnel near Guayama, and the Toro Negro Tunnel near Villalba. B. M. Hall, Ch. Engr. Irrigation Service. Bidder was T. L. HUSTON, of Havana, Cuba, to whom contract was awarded. Detail prices were as follows:

Carite Tunnel—		
1,000	cu. meters excavation for storm ditches	$0.60
3,000	cu meters excavation for portal cuts	1.00
2,100	cu. meters excavation for tunnel	14.00
50	cu. meters concrete, class A.	21.00
300	cu. meters concrete, Class B.	27.00
10,000	ft. B.M. tunnel timbering	120.00
3,000	lbs. hauling and placing reinforcing steel and iron	.10
	Total	$43,650
Toro Negro Tunnel—		
300	cu. meters excavation for storm ditches	$0.60
1,500	cu. meters excavation for portal cuts	1.25
3,300	cu. meters excavation for tunnel	17.50
350	cu. meters concrete Class B.	33.00
10,000	ft. B. M. tunnel timbering	130.00
	Total	$72,655
	Grand total	$116,305

EXAMINATIONS.

LABORATORY AID.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on March 16, to secure eligibles from which to make certification to fill a vacancy in the position of Laboratory Aid in agrostology (either sex) at $720 a year, in the Bureau of Plant Industry, Dept. of Agriculture, and vacancies requiring similar qualifications as they may occur in that Department, unless it shall be decided in the interests of the service to fill the vacancy by reinstatement, transfer, or promotion. Age limit, 17 to 25 years. Application form 304.

ASSISTANT.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on March 16-17, to secure eligibles from which to make certification to fill a vacancy in the position of Assistant (male), Naval Observatory, Bureau of Equipment, Navy Dept., at $1,400 a year, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interests of the service to fill the vacancy by reinstatement, transfer, or promotion. As no eligibles resulted from the examination held for this position on December 14-15, 1909, qualified persons are urged to enter this examination. Age limit, 24 years. Application form 1312.

PLANT PATHOLOGIST.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on March 16, to secure eligibles from which to make certification to fill a vacancy in the position of Assistant Plant Pathologist (male), at a salary ranging from $1,400 to $1,800 a year, depending upon the education, training and experience of the appointee, in the Department of Agriculture, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interests of the service to fill the vacancy by reinstatement, transfer, or promotion. Men only will be admitted to this examination. Applicants will not be assembled for any of the tests. Age limit, 21 to 40 years. Application form 304 and special form. Applications must be filed prior to closing hour on March 16.

CEMENT TESTER.—Philippines.—The U. S. Civil Service Commission announces an examination on March 16, to secure eligibles from which to make certification to fill a vacancy in the position of Cement Tester, $1,400 a year, in the Philippine Service, and vacancies requiring similar qualifications as they may occur in that service. Applicants for this position should have a good general education, some knowledge of chemistry, and not less than one year of practical work in cement testing. Each applicant will be required to submit with his application statements with respect to his character and reputation, personal and technical, from not less than three nor more than five competent persons to whom he is well known. Age limit, 18 to 40 years. Application forms 2 and 375. Applications must be filed prior to closing hour on March 16.

CONSTRUCTING CONCRETE ENGINEER. Rock Island, Ill.—The U. S. Civil Service Commission announces an examination on March 7, to secure eligibles from which to make certification to fill a vacancy in the position of Engineer at $200 a month, for employment for about ten months in connection with the erection of a new artillery storehouse at the Rock Island (Illinois) Arsenal, and vacancies requiring similar qualifications as they may occur in any branch of the service, unless it shall be decided in the interests of the service to fill the vacancy by reinstatement, transfer, or promotion. No education examination will be given for this position, but applicants will be required to file a form setting forth their technical school training, general engineering experience, and experience in design and construction of concrete structures (both plain and reinforced). In addition thereto they must furnish the names, addresses and occupations of not less than three nor more than five engineers or other persons competent to testify with regard to the applicant's general and professional standing. Age limit, 20 years. Application form 1312. Applications must be filed prior to closing hour on March 7.

Readers' Wants

If you are in the market for material, equipment or supplies, and fail to find it in our advertising pages, send us full particulars, and we will gladly put you in touch with the right parties.

ELEVATING GRADERS.—Indianapolis, Ind.—J. D. Adams & Co., 6 West Market St., advise that they are in the market for data and prices on elevating graders.

CEMENT AND CONCRETE BLOCKS. Corazal, C. Z., Panama.—Mr. H. V. Swarb wishes to receive catalogs of cement and concrete block machines, together with data on the cost, operation, etc.

BUILDING EQUIPMENT.—Malta, Mont.—K. Hamilton writes that he wishes to receive information as to dealers of house heating systems, also metal building materials and general fitting and equipment for a drug store. Also dealers for soda fountains.

CATALOGS, ETC.—Fort Andrews, Mass.—Catalogs, descriptive literature and price lists of all materials used in building construction, including plumbing, heating and electrical work are desired by Chas. R. Marsh, C. E. & Sup. Construction, Quartermasters' Dept., U. S. Army, Fort Andrews, Mass.

INDUSTRIAL NOTES.

A MUNICIPAL ENGINEER is wanted to take charge of all municipal utilities. Applicants should address W. C. Goffatt, Mayor, Orillia Ont.

THE POWER & MINING MACHINERY CO. has established a branch office in Atlanta, Ga. This office is located in the Equitable Bldg., and is in charge of Lloyd St. John Smith.

THE TRUSSED CONCRETE STEEL CO. announces that William Pies, 616 Columbus Savings & Trust Bldg., Columbus, Ohio, has been appointed Ohio representative for Kahn System products.

JOSEPH BATTLES, Manufacturers' Agent, recently opened an office in the Oliver Bldg., 141 Milk St., Boston, Mass. He will devote his attention to the marketing of centrifugal pumps, steam and gas engines, generating sets and other appurtenances.

THE BLAW COLLAPSIBLE STEEL CENTERING CO., Pittsburg, Pa., has recently purchased a new plant at Reynoldsville, Pa., consisting of two shops, a power house and an office building. The company is now operating this plant and the one at Reynoldsville, Pa.

IDLE FREIGHT CARS in the United States and Canada decreased 1,869 in the fortnight ending February 2, according to a report of the American Railway Association, published this week. The total net surplus, on that date, was 24,975, the smallest since November 24. The idle cars a year ago numbered 301,971.

THE PARKER BOILER CO., Pennsylvania Bldg., Philadelphia, announces that it has recently received the following orders: Lehigh Valley Cold Storage Co., South Bethlehem, Pa., two 265-HP. boilers; Abbott Alkaloidal Co., Chicago, Ill., one 262-HP. boiler (second order); Southern Colorado Power & Ry. Co., Trinidad, Colo., four 605-HP. boilers.

THE TURNER CONSTRUCTION CO., 11 Broadway, New York, has reorganized its branch office in Buffalo, N. Y., and moved to larger quarters, 312 Prudential Bldg. The management in Buffalo is now prepared to handle work independent of the New York office. The personnel will remain practically unchanged.

THE SANDUSKY PORTLAND CEMENT CO., Sandusky, Ohio, announces that its pure white stainless Portland cement has been used on a number of important buildings, among them, the new Emigrants' Savings Bank, New York; Providence Hospital, Seattle, Wash.; Soulard Public Baths, St. Louis, Mo., and the Racquette Court, at Marlborough House, England, for the Prince of Wales.

AN ENTIRE TRAIN of all-steel passenger cars left the Broad Street Station, Philadelphia, of the Pennsylvania Railroad, for New York Feb. 12. This train consisted of a combination passenger and baggage car, diner, two coaches, and a Pullman sleeper. The company now has, in actual use or in course of construction, 735 passenger cars of the all-steel type.

The Pullman Co. has for four years been at work designing all-steel parlor and sleeping cars for the Pennsylvania Railroad. Some 500 such cars will shortly be completed and placed in service. With the all-steel equipment now in service and about 250 to be ordered on the 1910 equipment programme, this company will, in a short time, have in service over 900 of its own steel passenger cars and 500 steel Pullman cars.

THE ELECTRIFICATION AND TERMINAL improvements of the New York Central Lines in New York City are about half completed. The old station building will be vacated about April 1 and the four remaining tracks on the high level will be torn out. This will permit of concentrated efforts on that part of the new terminal yard. The total expenditure up to January 1 amounted to about $43,000,000, of which the construction of the terminal aggregated $15,000,000, real estate purchased and condemned $11,000,000, electrification of the lines $10,000,000. The four-tracking, station improvement and grade-crossing elimination outside of the yard called for $7,000,000. Within a month all train service on the Harlem Division as far north as White Plains, 24 miles, will be operated electrically. The work on the Hudson Division will be considerably slower, but is now being pushed between Spuyten Duyvil and Harlem. Four-tracking is likewise being carried on at Yonkers, and is well started at Ossining.

THE CINCINNATI BICKFORD TOOL CO. has definitely decided to occupy at the earliest date possible, their property located between the plants of the Cincinnati Milling Machine Co. and the Cincinnati Planer Co., in the factory colony at Oakley, Ohio, just outside of Cincinnati. The Cincinnati Bickford Tool Co. has retained Dodge & Day, Engrs., of Philadelphia, to co-operate with them in connection with the determination of the character and extensions of this plant, and to prepare plans and specifications, and to be responsible for the construction. The preliminary work has been completed and the detailed plans and specifications are in course of preparation in Dodge & Day's Philadelphia office. Construction work will commence very shortly and the plant will be ready for occupancy in the early summer of 1910. The layout includes offices and service buildings. The manufacturing department will be housed in single-story buildings with saw-tooth roofs, immediately adjacent and connected with a high bay erecting shop and warehouse. There will also be erected a carpenter shop building, smith building and an automobile garage.

THE CANADIAN PACIFIC RAILWAY is planning to make numerous improvements and extensions. The general manager of lines west, C. J. Bury, has announced that about $30,000,000 will be expended. It is recalled that stockholders were offered $30,000,000 of new stock at 125 in November, 1909. The greater portion of this money will be used for these general improvements. The increase in the mileage of this road has been comparatively small in recent years, but the efforts of the management have been to develop the earning capacity per mile. This is forcibly shown in the reports; the increase in mileage in the last seven years being only 30%, while the earnings have more than doubled in the same time. The double tracking of the main line from Winnipeg to Portage la Prairie, 56 miles, is contemplated this year. Brandon, a distance of 77 miles from Portage la Prairie, will be the next objective point. A new line from Outlook to Castor, about 228 miles, will be built and likewise several branch lines are contemplated. A new line will cross the North Saskatchewan River at a high level and enter Edmonton, the capital of Alberta. It is probable that a new division will be created, including the territory west of Calgary and Macleod, about the 112th parallel.

LIST OF CONTRACTS PENDING.

Light, Heat and Power Plants.

	Noted in issue of
2-21*Power plant, Tacoma, Wash.	1-27
2-24 Engine, Lincoln, Neb.	2-10
2-24 Lamp standards, Wash., D. C.	2-17
2-26 Transformers, etc., London, Ont.	2-17
2-28 Electric fixtures, Cincinnati, O.	2-17
3- 1*Gas mains, Bristol, Conn.	2-10
3- 8 Cable, Toronto, Ont.	2-17
3- 9*Power-house, Wheeling, W. Va.	2-10
3-15 Franchise, Sierra Madre, Cal.	2-17
3-15 Electric fixtures, Green Bay, Wis.	2-17

Bridges.

2-18*Bridge, Duluth, Minn.	2-10
2-18 Replacing spans, Topeka, Kan.	2-17
2-19 Bridge, Parkersburg, W. Va.	2-17
2-19 Bridge, East Aurora, N. Y.	2-17
2-21 Bridge, Saskatoon, Sask.	2-17
2-21 Bridge, Carlsbad, N. Mex.	2-17
2-21 Bridge, Westbrook, Conn.	2-17
2-23 Bridge, Globe, Ariz.	2-10
2-23 Bridges, Minden, Neb.	2-10
2-23 Bridge, Chattanooga, Tenn.	2-10
2-23 Bridge, Washington, Pa.	1-27
2-23 Bridges, Montezuma, Iowa	2- 3
2-26 Piers, Grand Junction, Colo.	2-17
2-28 Superstructure, Shediac, N. B.	2-17
2-28 Piers, etc., Chapeau, Que.	2-17
2-28 Culverts, Lisbon, Ohio.	2-17
2-28*Swing span, Snohomish, Wash.	2- 3
3- 1 Bridge, etc., Vancouver, Wash.	2- 3
3- 1*Bridge work, Chattanooga, Tenn.	2-10
3- 2 Bridge work, Cleveland, Ohio.	2-17
3- 3 Bridge, Wyomissing, Pa.	2-17
3- 7 Bridge extension, Topeka, Kan.	2-10
3- 7 Bridges, Bradentown, Fla.	2-10
3- 7 Bridge, Sylva, N. C.	2-10
3- 7 Raising span, etc., Oxford, N. C.	2- 3
3- 9*Bridge, Ann Arbor, Mich.	2-17
3-11 Bridge work, Cincinnati, Ohio.	2-17
3-12 Bridges, Edmonton, Alta.	2-17
3-14 Bridge, Savannah, Ga.	2- 3
3-16*Substructure, etc., St. Joseph, Mich.	2-17

Buildings.

2-17 School, Wash., D. C.	2-17
2-18*Post-office, Henderson, N. C.	1-20
2-18*Laundry, etc., Louisville, Ky.	1-20
2-19 Quarters, Bremerton, Wash.	1-13
2-19 Church, Toronto, Ont.	2-17
2-21 Armory, Pittsburg, Pa.	2-17
2-21 Plans, San Mateo, Cal.	2-17
2-21 Masonic temple, Goderich, Ont.	2-17
2-21*Post-office, Pawtucket, R. I.	1-20
2-21 Laundry, Ft. Logan, Colo. (Mfg. Pl.)	2- 3
2-22 Building, Manhattan, Kan.	1-27
2-23 Prison, Stillwater, Minn.	2- 3
2-23 School, Wash., D. C.	2-17
2-24 Post-office, Rock Island, Ill.	12-30
2-24 Foundation, St. Paul, Minn.	2-10
2-25*Post-office, Goldsboro, N. C.	1-27
2-26*Store house, Ft. Wood, N. Y.	2- 3
2-28 Building, Crookston, Minn.	2-10
3- 1*Barracks, Ft. Douglas, Utah.	2- 3
3- 1 Post-office, Hot Springs, Ark.	1- 6
3- 1 Stable, Norfolk, Va.	2-17
3- 1 Bonds, Ottawa, Ohio.	2-17
3- 1 Parliament bldgs., Toronto, Ont.	2-17
3- 2 Post-office, Meridian, Miss.	1-20
3- 2*Bldings, Ft. D. A. Russell, Wyo.	2-10
3- 2 Ice plant, Ft. Sam Houston, Tex. (Mfg. Pl.)	2-10
3- 3*Post-office, Lynchburg, Va.	1-27
3- 4 Post-office, Lead, S. Dak.	1-27
3- 5 Quarters, Ft. Robinson, Neb.	2-17
3- 7 Stable, Ft. Mackenzie, Wyo.	2-10
3- 7 Schools, Columbus, Ohio.	2-17
3- 7*Buildings, Ft. Yellowstone, Wyo.	2-17
3- 9 Post-office, Athens, Ga.	1-27
3-10 Painting, etc., Duluth, Minn.	2- 3
3-11 Post-office, Jackson, Tenn.	2-10
3-12 Wire rope mill, Boston, Mass. (Mfg. Pl.)	2-10
3-14*Post-office, Frankfort, Ky.	2- 3
3-15*Post-office, Denver, Colo.	1-27
3-15 Buildings, Ft. Bayard, N. Mex.	2-17
3-16 Post-office, Danville, Va.	2- 3
3-17*Post-office, Richmond, Va.	2-10
3-21 Post-office, Lincoln, Ill.	2-17
3-22*Post-office, Fremont, Neb.	2- 3
3-23*Post-office, Connersville, Ind.	2-17
3-24 Post-office, Sacramento, Cal.	2- 3
3-25 Post-office, Lexington, Ky.	2-17
3-28*Post-office, Quincy, Ill.	2-17
3-29 Post-office, Estherville, Ia.	2-17
3-30*Court-house, Butte, Mont.	2- 3

Water-Works.

2-18 W.-Wks., Hebron, Neb.	2- 3
2-18 Water mains, Salt Lake City, Utah	2-10
2-18 Outlet gates, Modesto, Cal.	2-10
2-18 Pumps, Chicago Heights, Ill.	2-17
2-18 C.-I. pipe, Dayton, Ohio.	2-17
2-18 Water mains, Nottingham, Ohio.	2-17
2-18 Boilers, etc., Buffalo, N. Y.	2-17
2-19 Pump house, Port Robinson	2- 3
2-21 Dam, etc., Colorado Springs, Colo.	2- 3
2-21 W.-Wks., Merkel, Tex.	2- 3
2-21 Water main, Ft. Bayard, N. Mex.	2-10
2-21 Sed. basins, etc., Ardmore, Okla.	2-17
2-21 Water-works, Sabetha, Kan.	2-17
2-21 Water supply, Coffeyville, Kan.	2-17
2-22 Pipe, Toronto, Ont.	2-17
2-23*Water main, Elizabeth, N. J.	2- 3
2-24 Water-works, Vandalia, Mo.	2-17
2-28 Reservoir, Wallington, N. J.	2-17
2-26 Well, Haswell, Colo.	2- 3
2-26 Well, Cortez, Colo.	2- 3
2-28 Water-works, Milford, Iowa	2- 3
2-28 Dam, etc., Dallas, Tex.	2- 3
3- 1 Laying pipe, Waterburg, Conn.	2-17
3- 2 Water mains, New York.	2-17
3- 3 Gates, Baltis, S. Dak.	2-17
3- 7*Chimney, Meadville, Pa.	2-17
3- 7*Pump, St. Paul, Minn.	2-17
3- 7 Cisterns, Fort Morgan, Ala.	2-17
3- 7 Pump, Rock Island, Ill.	2-10
3- 8*Steel conduit, Portland, Ore.	2-17
3- 8 Boiler house, Ft. Riley, Kan.	2-17
3-14 Pumping engine, Phoenix, Ariz.	2-10
3-15 Water-works extension, Burlington, Wis.	2-17

Sewers.

	Noted in issue of
2-18 Sewers, Hebron, Neb	1-27
2-19 Drain, Charleston, S. C.	1-27
2-23 Drain ditches, Grandfalls, Tex.	2-10
2-23 Sewer, Buffalo, N. Y.	2-17
2-23 Sewer system, Holton, Kan.	2-17
2-24 Sewer, New York.	2-17
2-25 Sewer, Vancouver Barracks, Wash.	2-10
2-28 Sewers, Long Island City, N. Y.	2-17
3- 1*Sewers, Mount Sterling, Ky.	2-17
3- 2 Sewer plans, Vincennes, Ind.	2-17
3- 3 Sewers, Florence, S. C.	2-17
3- 3 Sewage pump station, El Paso, Tex.	2- 3
3- 4*Sewer, Louisville, Ky.	2-17
3- 7*Sewerage system, Fort Sill, Okla.	2-10
3-10 Sewers, Glen Osborne, Pa.	2-17
3-15 Sewers, Burlington, Wis.	2-17
4- 1 Sewer system, Cleveland, Tenn.	2-17
4- 4 Culverts, Ashley, N. Dak.	2-10

Streets and Roads.

2-18*State roads, Albany, N. Y.	1-27
2-18 Grading, etc., Cincinnati, Ohio.	2-17
2-19 Paving, Sandusky, Ohio.	2-17
2-19 Paving, Appleton, Wis.	2-17
2-21 Paving, Salt Lake City, Utah.	2-17
2-21 Paving, Wichita, Kan.	2-17
2-21 Paving, Youngstown, Ohio.	2-17
2-21 Grading, Cincinnati, Ohio.	2-17
2-21 Paving, Burlington, Iowa.	2- 3
2-23*Paving, Asbury Park, N. J.	2-17
2-24 Paving, etc., New York.	2-17
2-24 Macadam, Sewickley, Pa.	2-17
2-25 Asphalt, Winnipeg, Man.	2-17
2-25 Road, Cincinnati, Ohio.	2-10
2-25*Asphalt, Winnipeg, Man.	2-10
2-26 Limestone, Bexley, Ohio.	2-10
2-26 Paving, Lincoln, Neb.	2-17
2-28 Paving blocks, Gallitzin, Pa.	2-17
3- 1 Grading, Secaucus, N. J.	2-17
3- 1 Walks, Wash., D. C.	2-17
3- 1 Highways, Bowling Green, Ohio.	2-10
3- 1 Driveways, etc., Moline, Ill.	1-13
3- 3 Walks, etc., Ft. Hamilton, N. Y.	2-10
3- 4 Road, Cincinnati, Ohio.	2-17
3- 7 Paving, Montgomery, Ala.	2-17
3- 7 Paving, Dothan, Ala.	2-10
3- 7 Roads, Oxford, N. C.	2- 3
3-10*Sidewalks, Pensacola, Fla.	2-10
3-14 Paving, Caney, Kan.	2-17
3-15 Roads, Gordon, Ala.	1-13
3-17*Paving, Corning, N. Y.	2-10
3-30 Paving, Raleigh, N. C.	2-10

Miscellaneous.

2-18*Street signs, Watertown, N. Y.	2-10
2-18*Street signs, Watertown, N. Y.	2-10
2-19 Drain, Charleston, S. C.	2- 3
2-21*Pier improvement, Albany, N. Y.	2- 3
2-21*Earth work, Colo. Springs, Colo.	1-27
2-21 Street sprinklers (garbage), Moose Jaw, Sask.	2-17
2-23 Dredging, excav., Chicago, Ill.	2- 3
2-23 Ditches, Grand Falls, Tex.	2- 3
2-23 Pneumatic tube service, N. Y.	2-10
2-23*Fire alarm, Mamaroneck, N. Y.	2-17
2-24 Light vessel, St. Joseph, Mich.	2-17
2-24 Pile, crib walls, Wheeling, W.Va.	2- 3
2-25 Crane, Nashville, Tenn.	2-17
2-26*Tile drains, Monticello, Ill.	2-10
2-28*Incinerating plant (garbage), Lynchburg, Va.	1-27
2-28 Fence, gates, Winnipeg, Man.	1-27
3- 1 Ditch, Valparaiso, Ind.	2-10
3- 1 Ditch, Olivia, Minn.	2-10
3- 1 Ditch, Warren, Minn.	2-10
3- 1*Fire hose, Wash., D. C.	2-10
3- 1*Ditch, Warren, Minn.	2-10
3- 1 Dredging, South March, Ont.	2-17
3- 5*Iron, steel, Dallas, Tex.	2- 3
3- 5 Piers, Charleston, S. C.	2- 3
3- 7 Ditches, Eldora, Iowa	1-27
3- 7 Ditch, Columbus, Ohio.	2-17
3- 8 Retaining wall, Bristol, Conn.	2-17
3- 9*Dredging, Savannah, Ga.	2-17
3-10*Ditch, Warrensburg, Mo.	2-10
3-12 Repairing launch, Jackson Barracks, La.	2-17
3-12*Removing wrecks, Boston, Mass.	2-17
3-14*Cement, etc., Wash., D. C.	2-17
3-16 Moving stones, Portland, Me.	2-17
4- 1 Torpedo boats, Wash., D. C.	2- 3
4- 4 Culverts, Ashley, N. Dak.	2-10
4-30 Ditch, Olivia, Minn.	12-23

Examinations.

2-21 Rodman, New York	1-30
2-26 Topographic Draftsman, Albany.	2- 3
2-26 Franchise Examiner, Albany	2- 3
2-26 Junior Ry. Engr., Albany	2- 3
2-28 Transitman, New York.	1-30
3- 3 Junior chemist, Wash., D. C.	1-27
3- 3 Technical Asst., Wash., D. C.	2-10
3- 7 Constructing Concrete Engineer, Rock Island, Ill.	2-17
3- 9 Junior Animal Husbandman, Wash., D. C.	2-10
3- 9 Chemist, Wash., D. C.	2-10
3- 9 Topographic draftsmen, Wash., D. C	1-27
3-16 Plant Pathologist, Wash., D. C.	2-17
3-16 Laboratory Aid, Wash., D. C.	2-17
3-16 Cement Tester, Philippines.	2-17
3-16 Assistant, Wash., D. C.	2-17
3-30 Scientific Asst., Wash., D. C.	2-10

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.	Work.	See issue.
2-19	Drain, Charleston, S. C. (S.)	1-27
2-19	Quarters, Bremerton, Wash. (S.)	1-13
2-21	*Power plant, Tacoma, Wash. (P. & S.)	1-27
2-21	Laundry, Ft. Logan, Colo. (S.)	2- 3
2-23	Dredging excavation, Chicago. (S)	2- 3
2-24	Pile, crib walls, Wheeling, W. Va. (S.)	2- 3
3- 5	Piers, Charleston, S. C. (S.)	2- 3
3- 8	*Conduit, Portland, Ore. (S.)	2-17
3-12	Wire rope mill, Boston, Mass. (S)	2-10
3-18	Post-office, Rome, Ga.	2- 3

TRADE PUBLICATIONS.

VITRIFIED PIPE SEWERS.—Blackmer & Post Pipe Co., St. Louis, Mo. Paper; 6 × 8¾ ins.; pp. 48; illustrated.

The advantages claimed for vitrified pipe sewers in comparison with sewers of other materials are discussed in this pamphlet. The dimensions, strength, testing and laying of vitrified pipe are all dealt with, and there are specifications for the pipe.

STEEL TRUCK FRAMES.—The McConway & Torley Co., Pittsburg, Pa. Paper; 6 × 9 ins.; pp. 6; illustrated.

The Buhoup side frame is of the arch-bar type but formed by a single steel casting, so as to give greater strength and less cost for repairs and maintenance than in the built-up construction. Adjustable bolster columns enable the truck bolster to be removed and replaced without disturbing any other part of the truck.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56, of Advertisements and Construction News page 64.

PAVING

Sylvania, Ohio.

Sealed proposals addressed to the Village Clerk and endorsed "Proposals for Constructing Pavements," will be received by the Council of the Village of Sylvania, Lucas Co., Ohio, until twelve (12) o'clock noon, of March 15, 1910, and then and there publicly opened and read by the Clerk, for furnishing the necessary labor and materials for paving with vitrified brick or block, and otherwise improving the street known as Ohio Avenue and Division Street, from the North line of Blank Street to the Toledo & Western R. R. Co. tracks, according to the plans and specifications therefor on file in the office of the Village Clerk.

Each bid must be accompanied by a cash deposit or a certified check on some solvent bank, payable to the order of the Village Clerk for an amount equal to ten (10) per cent. of the aggregate amount of the proposal, as a guarantee that if the proposal is accepted a contract will be entered into, and the required bond will be furnished for the performance of the work.

Plans and specifications can be seen and forms of proposals obtained at the office of the Village Clerk or the Engineers, The Riggs & Sherman Co., 613 Nasby Building, Toledo, Ohio.

The Council reserves the right to reject any or all bids.

By order of the Council.

W. B. HARRIS,
Village Clerk.

Sylvania, Ohio, February 18, 1910.

Situations Wanted

STRUCTURAL and ornamental iron work, 17 years' experience; 39 years of age; American; detailing squad boss—designing; 8 years estimating and contracting; capable of taking charge, either of drawing room or estimating department; executive. Address "B. B. 6," Engineering News, New York. 7-1t

Situations Open

DRAFTSMAN WANTED in N. Y. engineering office—Young ambitious man with experience in mill or industrial building work, and good mathematician. Advancement commensurate with ability, but salary low to begin. State amount and give experience and references. Address "K. B. 7," Engineering News, New York. 7-1t

DRAFTSMEN WANTED—Two experienced draftsmen on elevating and conveying machinery work for Pittsburg district; first class men only. State experience, salary, etc., and date you could report for work. Address "C. A. 7," Engineering News, New York. 7-1t

WANTED—First class structural detailers and checkers on mill and office buildings. Apply, stating age, experience and salary expected and when available. Address "H. B. 7," Engineering News, New York. 7-1t

DRAFTSMEN WANTED—Several first-class structural detailers and checkers; also several mechanical men. Address HEYL & PATTERSON, INCORPORATED, Pittsburg, Pa. 7-2t

WANTED—A mechanical draftsman, with experience in sugar machinery preferred, for Porto Rico; state age and salary, and furnish testimonials. Address "O. B. 7," Engineering News, New York. 7-1t

WANTED—Several young men with technical training, preferably with some experience in fire protection engineering, as surveyors, draftsmen, and inspectors. An unusual opportunity for men of the right character with proper qualifications desiring to engage in this branch of engineering. Inspection & Survey Dept., ASSOCIATED FACTORY MUTUAL FIRE INS. COS., 1515 Arch St., Philadelphia, Pa. 7-1t

MECHANICAL DRAFTSMAN, experienced in paper mill construction; state experience, salary. Address "P. B. 7," Engineering News, New York. 7-1t

Miscellaneous Wants

PARTNER WANTED

With $400 to purchase half interest in municipal and general surveying business in a rapidly growing manufacturing town of 6,000, surrounded and adjoining smaller towns; established 4 years, reputable and flourishing; am compelled to absent myself indefinitely this season and desire to leave business in competent hands, or will sell outright for $1,000; equipment value $500. Address "X. 7," Engineering News, New York. 7-1t

Am in the market for both

Tandem and Three Wheel Rollers

for New York State work.

Address "Albany," care Engineering News, New York.

FOR SALE

FOR SALE.

3—9 × 14 36" gage Vulcan locomotives.
2—10 × 14 36" gage Vulcan locomotives.

All in first-class condition. Can be inspected at Weedsport, N. Y.

I. M. LUDINGTON'S SONS,
627 Powers Bldg., Rochester, N. Y., or
Weedsport, N. Y. 7-1t

Part of Our Equipment

FOR SALE.

Victor Construction Company

Northside, Pittsburg, Pa.

Two (2) Victor Steam Shovels, 60 T, standard gage.
Two (2) Vulcan Locomotives, 9 × 14 saddle tank, 36" gage.
Fourteen (14) Kilbourne & Jacobs cars, 3 yds., 2-way dump.

This plant in use but a short time. Has been completely overhauled and repaired. Is guaranteed to be in perfect condition and ready for immediate use. Strictly first-class proposition. Correspondence solicited. Inspection may be arranged. Pittsburg district. Sell whole or part at attractive price. 7-4t

FOR SALE.

NEW STEEL RAILS

We have a quantity of new steel rails up to 40 lbs. per yard in weight, which we can offer at attractive figures, for shipment out of stock New York.

Also Frogs and Switches.

Write for prices.

WONHAM, SANGER & BATES
30 Church Street, New York, N. Y

FOR SALE.

45-TON STEAM SHOVEL

Good as new—Just rebuilt.

Present Location—Oklahoma

Boom Pattern, 1½-yard Dipper.
New Boiler.

F. A. PECKHAM
Cullums Station, Cincinnati, Ohio. 7-4t

FOR SALE.

Keuffel & Esser Transit, No. 2268, Standard size, an extra fine instrument in good condition, similar to their List No. 8052 X. Fixed Stadia, Vertical Arc, Porcelain Compass Dial, Level to Telescope. In use 8 years. Cost new $250. Will take $150. H. E. JONES, Schurz, Nevada. 7-2t